BEFORE

THE PUBLIC SERVICE COMMISSION OF

SOUTH CAROLINA

DOCKET NO. 2021-2-E - ORDER NO. 2021-296

MAY 6, 2021

IN RE: Annual Review of Base Rates for Fuel Costs for Dominion Energy South Carolina, Incorporated (For Potential Increase or Decrease in Fuel Adjustment or Gas Adjustment)	)))))	ORDER APPROVING FUEL COSTS AND ADOPTING SETTLEMENT AGREEMENT

I. INTRODUCTION

This matter comes before the Public Service Commission of South Carolina ("Commission") on the annual review of the fuel purchasing practices and policies of Dominion Energy South Carolina, Inc. ("DESC" or "Company") and for a determination as to whether any adjustment in the fuel cost recovery factors is necessary and reasonable. The procedure followed by the Commission in this proceeding is set forth in section 58-27-865 of the South Carolina Code of Laws (2015). Additionally, pursuant to section 58-39-140, the Commission must determine in this proceeding whether an increase or decrease should be granted in the fuel cost component designed to recover the incremental and avoided costs incurred by the Company to implement the Distributed Energy Resource ("DER") program previously approved by the Commission. The period under review in this Docket is January 1, 2020, through December 31, 2020 ("Review Period").

A. Notice

By letter dated August 17, 2020, the Commission's Clerk's Office instructed DESC to publish by October 8, 2020, a Notice of Hearing and Prefile Testimony Deadlines

("Notice") in newspapers of general circulation in the area affected by the Commission's annual review of DESC's fuel purchasing practices and policies. The Clerk's Office also instructed DESC to furnish the Notice to its customers by October 8, 2020, by U.S. Mail via bill inserts or electronically to its customers who agreed to receive notice electronically. The Notice set forth the nature of the fuel costs proceeding and advised all interested parties who desired to participate in the proceeding of the manner and time in which to intervene. On September 15, 2020, DESC filed affidavits with the Commission demonstrating the Notice was duly published in newspapers of general circulation in accordance with the instructions set forth in the Clerk's Office's August 17, 2020, letter. On November 23, 2020, DESC filed an affidavit with the Commission asserting notice to its customers was appropriately furnished.

B. Intervenors

The following four parties intervened in this matter: South Carolina Energy Users Committee ("SCEUC"), CMC Steel South Carolina ("CMC Steel"), South Carolina Coastal Conservation League ("SCCCL"), and Southern Alliance for Clean Energy ("SACE"). In addition, the Office of Regulatory Staff (ORS") is automatically a party of record pursuant to Section 58-4-10(B) of the S.C. Code of Laws (2015 and Supp. 2020). The South Carolina Department of Consumer Affairs ("Consumer Affairs") was provided notice of this Docket which could impact DESC customers' utility rates; however, Consumer Affairs did not intervene. S.C. Code Ann. § 37-6-604 (2015 and Supp. 2020).

C. Hearing

The Commission held a virtual, public hearing on April 8, 2021. The Honorable Florence P. Belser, Vice Chairman of the Commission, presided. Matthew W. Gissendanner, Esquire, Michael Anzelmo, Esquire, Mitchell Willoughby, Esquire, and Tracey Green, Esquire, represented DESC; Scott Elliott, Esquire, represented SCEUC; Kate Lee Mixson, Esquire, and Kurt D. Ebersbach, Esquire—Mr. Ebersbach appearing *pro hac vice*—represented SCCCL and SACE. CMC Steel asked permission not to appear at the hearing, and the Commission granted the request on April 7, 2021. Jeffrey M. Nelson, Esquire, and Jenny R. Pittman, Esquire, represented ORS. ORS introduced the Stipulation Agreement (Stipulation) into evidence, and the Commission accepted the Stipulation into the record.

DESC presented the direct testimonies of George A. Lippard, III, Henry E. Delk, Jr., Tom A. Brookmire, and Rose M. Jackson. DESC presented the corrected direct testimony of Mark C. Furtick, the corrected direct and rebuttal testimony of Eric H. Bell, the rebuttal testimony of Margot Everett, and the corrected direct and responsive testimony of Allen W. Rooks.

SCCCL and SACE presented the direct and surrebuttal testimony of R. Thomas Beach. ORS presented the direct testimonies of Brandon S. Bickley and Michael Seaman-Huynh, and the direct and surrebuttal testimonies of William C. Kleckley and O'Neil O. Morgan. SCEUC did not present testimony at the hearing.

II. STIPULATION AGREEEMENT

DESC, ORS, and SCEUC (collectively referred to as "Stipulating Parties") entered into a Stipulation, filed with the Commission on April 1, 2021, by ORS , following the pre-filing of direct testimony by the parties. The Stipulation was admitted into evidence as Hearing Exhibit 1. The Stipulation is attached to this Order as Exhibit 1 and incorporated herein as Order Exhibit 1. Among other things, the Stipulating Parties agreed to the following:

(1) DESC's calculation of the Net Energy Metering (NEM) Methodology and method of accounting for avoided and incremental costs for NEM during the Review Period were reasonable and prudent, were consistent with methodology approved in Commission Order No. 2015-194, and complied with S.C. Code Ann. § 58-40-10, *et seq.* (2015).

(2) DESC has met the utility-scale and customer-scale goals as prescribed by S.C. Code Ann. § 58-39-130 (2015). During the Review Period, DESC reasonably and prudently incurred costs in implementing the Company's Distributed Energy Resource (DER) Program, as approved in Commission Order No. 2015-512.

(3) The cumulative balances of DESC's DER program costs as of December 31, 2020, totaled an over-collected balance of $738,982 in avoided costs and an under-collected balance of $5,620,037 in incremental costs, which are reasonable and prudent. The cumulative balances of DESC's DER program costs as of April 30, 2021, are projected to be an over-collected balance of $507,871 in avoided costs and an under-collected balance of $7,100,680 in incremental costs, which are reasonable and prudent.

(4) DESC reasonably projected its DER program costs for the period January 1, 2021, through April 30, 2022, which are reflected in Hearing Exhibit No. 6 (Corrected Direct Exhibit Nos. AWR-6 through AWR-9).

(5) DESC's proposed DER Avoided Cost Component amounts by class, as set forth below, are reasonable and prudent, and, if approved by the Commission, shall become effective for the period beginning with the first billing cycle of May 2021.

Class	DER Avoided Cost Component (¢/kWh)
Residential	0.042
Small General Service	0.037
Medium General Service	0.029
Large General Service	0.020

(6) DESC's proposed monthly per account DER Incremental Cost Components by class, as set forth below, properly allocate DESC's DER program incremental costs, are reasonable and prudent, and, if approved by the Commission, shall become effective for the period beginning with the first billing cycle of May 2021.

Class	Monthly Per Account DER Incremental Cost Component
Residential	$ 1.00
Small & Medium Gen. Svc.	$ 6.15
Large General Service	$ 100.00

(7) The NEM Riders to Retail Rates, entitled Second Net Energy Metering for Renewable Energy Facilities and Third Net Energy Metering for Renewable Energy Facilities, attached [to the Stipulation] as Attachments A and B, including the rates, terms,

and conditions, are lawful, just, and reasonable, and, if approved by the Commission, shall become effective for the period beginning with the first billing cycle of May 2021.

(8) DESC made reasonable efforts to maximize generating unit availability and minimize fuel costs and took appropriate corrective action with respect to outages that occurred during the Review Period.

(9) Subject to any adjustments set forth in ORS's pre-filed direct testimony, DESC's accounting practices are in compliance with S.C. Code Ann. § 58-27-865 (2015).

(10) DESC's net cumulative over-collected balance of total base fuel, variable environmental, and avoided capacity costs for the period ending December 31, 2020 totaled $55,898,521, and its estimated net cumulative over-collected balance of total base fuel, variable environmental, and avoided capacity costs through April 2021 totaled $49,571,802. As of December 31, 2020, the net cumulative over-collected balance of $55,898,521 consists of cumulative over-collected base fuel costs of $52,090,275 and cumulative over-collected variable environmental and avoided capacity costs of $3,808,246. As of April 2021, the estimated net cumulative over-collected balance of $49,571,802 consists of cumulative over-collected base fuel costs of $44,697,895 and cumulative over-collected variable environmental and avoided capacity costs of $4,873,907.

(11) The appropriate fuel factors for DESC to charge pursuant to this Stipulation for the period beginning with the first billing cycle of May 2021 and extending through the last billing cycle of April 2022 are listed in the table immediately below:

Class	Base Fuel Cost Component (¢/kWh)	Variable Environmental & Avoided Capacity Cost Component (¢/kWh)	DER Avoided Cost Component (¢/kWh)	Total Fuel Costs Factor (¢/kWh)
Residential	2.413	0.068	0.042	2.523
Small General Service	2.413	0.058	0.037	2.508
Medium General Service	2.413	0.046	0.029	2.488
Large General Service	2.413	0.031	0.020	2.464
Lighting	2.413	0.000	0.000	2.413

(12) If approved by the Commission, the rates proposed herein would increase the average monthly bill of a Rate 8 residential customer using 1,000 kWh per month from $122.31 to approximately $123.90, a net increase of approximately $1.59 or 1.30%.

(13) The Stipulating Parties agree that the fuel factors set forth above are consistent with S.C. Code Ann. § 58-27-865 (2015) and that, except as otherwise provided in the Stipulation, any and all challenges to DESC's historical fuel costs recovery for the period ending December 31, 2020, are not subject to further review; however, the projected fuel costs for the period beginning January 1, 2021, and thereafter shall be an open issue in future fuel costs proceedings held under the procedure and criteria established in S.C. Code Ann. § 58-27-865 (2015).

(14) The tariff sheet entitled, "Adjustment for Fuel, Variable Environmental, & Avoided Capacity, and Distributed Energy Resource Program Costs," attached [to the Stipulation] as Attachment C, including the rates, terms, and conditions, is lawful, just, and reasonable, and, if approved by the Commission, shall become effective for the period beginning with the first billing cycle of May 2021.

(15) The Stipulating Parties agree that it is reasonable and prudent for the Company to include in the Base Fuel Component its labor costs regarding nuclear fuel procurement, nuclear core design, safety analysis, and fabrication surveillance and final receipt inspection. The Company agrees that it will not recover other labor costs through the Fuel Clause Statute without first seeking and obtaining review by interested parties and approval by the Commission. The Company further agrees that it will make all proper accounting adjustments to remove these labor costs from its base rates to ensure that there is no double counting of these costs.

(16) With regards to plant outages not completed as of December 31, if any, and outages where final reports of DESC, contractors, governmental entities or others are not available, if any, the parties agree ORS retains the right to review the reasonableness of the plant outage(s) and associated costs in the review period during which the outage is completed or when the report(s) on such outage(s) become available.

(17) Upon written request, DESC will provide the following to the Stipulating Parties:

a. Copies of the monthly fuel recovery reports currently filed with the Commission and ORS; and

b. Forecasts of the expected fuel factors to be set at DESC's next annual fuel proceeding using DESC's historical (over)/under-collected balance to date following the quarters ending June 30th and September 30th, 2021, and forecasted prices for uranium, natural gas, coal, oil, and other fuel required for the generation of electricity. The forecasts will also provide the expected DERP charge to be set at the Company's next annual fuel

proceeding based upon DESC's historical (over)/under-recovery to date and DESC's forecast of DERP incremental and avoided costs. DESC agrees it will put forth reasonable efforts to forecast the expected fuel factors to be set at its next annual fuel proceeding; however, the Parties agree that these quarterly forecasts will not be admitted into evidence in any future DESC proceeding.

(18) The Stipulating Parties agree that the Company's "Rider to Residential Rates and Time-of-Use Demand Rate 28 – Net Metering for Renewable Energy Facilities" should be eliminated because it terminated on December 31, 2020, and because all customers previously taking service under this rider have been transitioned to other rate schedules for which they are eligible.

Intervenors SCCCL, SACE, and CMC Steel were not signatories to the Stipulation. CCCL and SACE presented testimony in opposition to certain issues agreed upon by the Stipulating Parties (CMC Steel was excused and did not appear at the hearing. See, p. 3).

III. STATUTORY STANDARDS AND REQUIRED FINDINGS

Title 58, Chapter 27, Article 7, of the South Carolina Code of Laws (2015) sets forth the statutory law regarding electrical utilities' rates and charges and the Commission's authority to approve those rates and charges. "Every rate made, demanded or received by an electrical utility . . . shall be just and reasonable." S.C. Code Ann.§ 58-27-810 (Supp. 2020). With the passage of 2019 Act No. 62, the General Assembly set forth the rights of an electrical utility customer, as codified in section 58-27-845, to protect, help, and equip customers of electric utilities, and to require the Commission to fix "just and reasonable utility rates." S.C. Code Ann. § 58-27-845 (Supp. 2020).

Section 58-27-865 establishes the authority and responsibility of the Commission to annually review an electrical utility's fuel purchasing practices and policies and to determine if any adjustment to the fuel cost recovery mechanism used by the electrical utility is necessary and reasonable.

> The commission shall direct each electrical utility which incurs fuel cost for the sale of electricity to submit to the commission and to the Office of Regulatory Staff . . . its estimates of fuel costs for the next twelve months. . . . Upon conducting public hearings in accordance with law, the commission shall direct each company to place in effect in its base rate an amount designed to recover, during the succeeding twelve months, the fuel costs determined by the commission to be appropriate for that period, adjusted for the over-recovery or under-recovery from the preceding twelve-month period.

S.C. Code Ann. § 58-27-865(B) (Supp. 2020).

As part of its review of an electric utility's proposed rate changes, the Commission also has the authority to "direct the electrical utilities to account monthly for the differences between the recovery of fuel costs through base rates and the actual fuel costs experience;" to "offset . . . the cost of fuel recovered through sales of power pursuant to interconnection agreements;" and to "disallow recovery of any fuel costs that it finds without just cause to be the result of failure of the utility to make every reasonable effort to minimize fuel costs or any decision of the utility resulting in unreasonable fuel costs." S.C. Code Ann. § 58-27-865(C-F) (2015).

Chapter 39 of Title 58 of the South Carolina Code of Laws (2015) mandates that the goal of the South Carolina Distributed Energy Resource Act is to "promote the establishment of a reliable, efficient, and diversified portfolio of distributed energy

resources for the State." Section 58-39-130 sets forth the requirements an electrical utility must meet in establishing a distributed energy resource program. If approved, "an electrical utility shall be permitted to recover its costs related to the approved distributed energy resource program pursuant to [s]ections 58-27-865 and 58-39-140 to the extent those costs are reasonably and prudently incurred to implement an approved program." S. C. Code Ann. § 58-39-130(A)(2) (2015). Further, section 58-39-140 allows a utility to submit estimates of its incremental costs for the upcoming year: " 'incremental costs' means all reasonable and prudent costs incurred by an electrical utility to implement a distributed energy resource program." S.C. Code Ann. § 58-39-140(A) (2015).

IV. REVIEW OF THE EVIDENCE PRESENTED AT THE HEARING

A. Fuel Purchasing, Environmental Costs, Plant Operations, and Fuel Inventory Management

DESC offered the testimony of George Lippard, Site Vice President of the V. C. Summer Nuclear Station (VCSNS). Lippard reviewed the operating performance of the VCSNS during the review period, testifying it met or exceeded all requirements of the Nuclear Regulatory Commission (NRC) and the Institute of Nuclear Power Operations (INPO). Lippard noted the NRC "reported that VCSNS operated in a manner that preserved public health and safety and fully met all cornerstone objectives" and INPO assigned VCSNS an "exemplary" rating, "the highest achievable rating." Tr. p. 16.3 - p. 16.4.

Lippard also provided information regarding VCSNS's two periods of reduced output, one due to the replacement of a faulty water pump on July 27, 2020, and the second, approximately one month later, on August 22, 2020, due to the failure of the replacement

water pump. The first reduction in power lasted approximately three days, and the second, approximately four weeks. Tr. p. 16.4 – p. 16.5.

As to planned outages, Lippard testified VCSNS conducted a scheduled refueling outage which began on April 10, 2020, lasted thirty days, and ended three days ahead of schedule on May 10, 2020, during which time DESC performed "over 6,000 tasks" of preventative and corrective maintenance and replaced one-third of the station's fuel assemblies. Tr. p. 16.7.

Henry Delk, Director of DESC Power Generation, offered testimony regarding the operating performance of DESC's non-nuclear power generation stations and of South Carolina Generating Company's ("GENCO") Williams Electric Generating Station during 2020. Tr. p. 38.1 – p. 38.2. Delk explained DESC operates various non-nuclear power generation units, including coal and gas fired steam units, combined gas and oil-fired units, simple-cycle combustion turbines, and hydroelectric generating facilities, as well as a solar generation system. Tr. p. 38.3. Delk testified all these facilities "operated efficiently and dependably during the Review Period," and performed maintenance during planned outages. Tr. p. 38.5. Delk also relayed the non-nuclear facilities had "three significant forced outages during the Review Period." Tr. p. 38.9. As to DESC's fossil system forced outage factors, Delk noted DESC's factor for coal-fired units "compares extremely favorably" to the national average, as reported by the North American Electric Reliability Council (NERC), "much lower than" the five-year NERC national average for combined-cycle units; and "much better" than the five year national average for gas-fired steam units. Tr. p. 38.11.

Tom Brookmire, DESC Manager of Nuclear Fuel Procurement, testified to the procurement process and to uranium prices, as uranium is the source of fuel used in nuclear stations. Tr. p. 53.1 – p. 53.3. Brookmire discussed the process of turning uranium ore into useable fuel, his department's procurement process, and the market conditions for the purchase of nuclear fuel. Tr. p. 53.3 – p. 53.8. This witness also provided testimony regarding the effect of the abandonment of two units at the VCSNS, which he indicated created an "inventory pool," and the expectation DESC's nuclear fuel costs "will continue to be significantly reduced in the short term and that the volatility of individual refueling batches due to swings related to uranium commodity pricing and time of purchases also will continue to be reduced." Tr. p. 53.9. Brookmire also informed the Commission a party DESC contracted with, Cameco, withdrew its complaint against DESC in a delivery dispute. Tr. p. 53.10. With Cameco's withdrawal of its complaint, "a positive business relationship" resumed between Cameco and DESC on other contracts. Tr. p. 53.11. Brookmire asserted DESC procured nuclear fuel in a reasonable and prudent manner.

Witness Brookmire also testified regarding DESC's proposal to change its method of recognizing and expensing labor costs for design, analysis, and fabrication of nuclear fuel assemblies. Brookmire stated DESC currently expenses labor costs through O&M labor costs in base rates as costs are incurred. DESC proposes to recover these labor costs through DESC's fuel factor, whereas labor costs "not tied directly to the design, analysis, or fabrication, such as engineering labor costs for reactor operation support, plant fuel handling labor costs, attending general fuel-related industry meetings, regulatory fees, or industry lobbying expenses, would be excluded from the fuel factor and continue to be

expensed through O&M labor costs." Tr. p. 53.12, ll. 15-19. Brookmire explained that DESC seeks to make this change because, unlike fossil fuels, nuclear fuel assemblies are manufactured products requiring extensive design and engineering, fabrication, and delivery to the reactor site, where they are used for approximately three (3) to five (5) years before being discharged. Tr. p. 53.13, ll. 4-9. As part of the creation of a nuclear fuel batch, the Company will incur internal and external costs for engineering as well as material acquisition (uranium), chemical processing (conversion), U_{235} isotope changes (enrichment), and fuel assembly fabrication steps. Tr. p. 53.13, ll. 9-13. Brookmire observed that these steps are often contracted for years in advance and the costs associated with converting raw fuel into a usable form for a nuclear reactor are varied and not limited to just the cost of the raw fuel. Tr. p. 53.13, ll. 13-15. Additionally, Brookmire testified because "fabricated nuclear fuel can be purchased in a completed 'turn-key' bundled fashion, meaning that the total costs for procurement, materials, engineering, and fabrication are included in the supplier's delivered price for each nuclear fuel assembly, then all of these costs would be allowable as a batch capital cost." Tr. p. 53.14, ll.13-17.

Brookmire testified DESC proposes to implement this change to recognizing and expensing these labor costs as part of the reporting period that began on January 1, 2021. Tr. p. 53.15, ll.7-9. If approved, a small amount of these labor costs would be recognized in fuel costs planned for a fuel batch that will be placed into service late in the 2021 reporting period. Tr. p. 53.15, ll.9-11. However, due to the manner in which fuel batches are processed, the majority of these costs would not be recognized in fuel costs until later in the 2024 reporting period. Tr. p. 53.15, ll.11-13. Witness Rooks testified that, from the

customer's standpoint, things would be effectively the same because these expenses are removed from base rates and instead recovered through fuel costs. Tr. p. 205, l.22 – p. 207, l.12. He stated that, essentially, the Company is capitalizing those expenses. Tr. p. 206, ll. 13-14. The witness noted that other Dominion Energy entities record nuclear fuel assembly labor costs in this same manner and that Duke Energy does so as well. Tr. p. 206, ll. 9-12. Rooks testified DESC will implement this change through capitalizing these costs. Tr. pp. 199-207. He explained that the Company determined that approximately $248,450 of these costs are in base rates in the test year. Tr. p. 206, l. 13 – p. 207, l. 13. This equates to a monthly amount of $20,704, which, if the Commission accepts the Company's proposal, the Company will credit back to retail fuel costs beginning in May 2021 in order to ensure no double counting. *Id.* Witness Rooks noted that the amount of these labor costs in base rates is approximately 0.6% of the $41,200,000 of nuclear fuel expenses incurred in calendar year 2020. Tr. p. 207, ll. 1-5. Witness Rooks confirmed that these amounts would not be included in base rates going forward if the Commission approves this change. Tr. p. 206, ll. 3-6.

Rose Jackson, DESC Director of Gas Supply Services, testified to her department's process of obtaining daily market information regarding gas costs, DESC's contracts with suppliers, and the resources DESC used to make its purchasing decisions. Jackson also provided information to the Commission regarding DESC's natural gas pipeline capacity and testified DESC's "current capacity contracts are sufficient for its presently existing generation needs." Tr. p. 75.10.

Michael Shinn, DESC Manager of Fuel Origination, testified to the procurement of coal and No. 2 fuel oil for DESC and GENCO's Williams Station, a DESC non-nuclear steam generation plant. Shinn testified DESC used thirty percent less coal in 2020 than in 2019 to produce electricity and indicated DESC's purchase of coal fell by 43%. Tr. pp. 88.4, 88.6. Shinn also provided information regarding DESC's plans for the purchase of coal in 2021 and opined there will be a decrease in supply. Tr. p. 88.7 – p. 88.9; p. 88.11, l.13 - p.88.12, l.9; p. 88.13, l.1 – p. 88.15, l. 21. Shinn discussed how DESC evaluates the cost of coal and how it anticipates consumption, and the fluctuation of coal prices over 2020. Tr. p. 88.16, ll. 1-9. Shinn briefly addressed the price of No. 2 fuel oil, the cost of which is expected to be stable, and the supply of limestone for use at the Wateree and Williams Stations. Tr. p. 88.17, l. 12 – p. 88.18, l. 7. Shinn asserted DESC acted in a reasonable and prudent manner in its procurement of coal, No. 2 fuel oil, and limestone. Tr. p. 88.18, ll. 12-16.

Michael Seaman-Huynh, ORS Deputy Director of Energy Operations, testified to ORS's review of DESC's fuel purchasing practices. Tr. p. 297.1 – p. 297.9. Seaman-Huynh reported his review showed DESC reduced its nitrogen oxide and sulfur dioxide emissions, and DESC's forecasted sales and costs of fuel are reasonable and in keeping with historical data. Tr. p. 297.4, ll. 9-20. This witness also addressed an error it found in DESC's calculation of the length of time of a scheduled outage. Tr. p. 297.4, l. 21 – p. 297.5, l. 10. During the course of ORS's review of the Company's costs for the Forecasted Period,

> an error was discovered in the months of October and November of 2021 regarding the timing of an outage at the

> Jasper Generating Station ("Jasper"). The Company inadvertently included the fall 2021 outage at Jasper for only three (3) days in its cost model. The outage is actually scheduled to last for thirty-four (34) days. Exhibit BSB-6 [Hearing Exhibit No. 12, Bickley Direct Exhibit No. BSB-6], attached to the direct testimony of ORS witness Brandon Bickley, shows that Jasper is one of the Company's lower cost generating units. Because Jasper will not be available during the outage, a higher cost resource will have to be dispatched in its place. The difference between these resource costs results in an error, increasing the Company's forecasted costs by approximately $5,549,000.

Tr. p. 297.5, ll. 2-10. Seaman-Huynh recommended DESC address the error in the next annual fuel proceeding before the Commission to avoid increasing customer rates beyond the current proposal. Tr. p. 297.5, ll. 11-16. Allen Rooks of DESC responded to Seaman-Huynh's testimony regarding the fuel forecast error, noting: "DESC agrees that the approach proposed by ORS for addressing the Company's forecast error is reasonable for this proceeding and does not object." Tr. p. 191.5. The Commission finds the recommendation to address this error reasonable because correcting the error in this proceeding could increase customer rates beyond what was proposed by the Company.

Seaman-Huynh further stated ORS did not object to DESC including labor costs for nuclear fuel procurement, design, and fabrication in its Base Fuel Component, but noted DESC is not currently recovering these additional labor costs through approved fuel rates. Tr. p. 297.8, ll. 6-13. Witness Seaman-Huynh also testified,

> ORS recommends that DESC not be allowed to recover any other labor costs through the Fuel Clause Statute without review by interested parties and approval of the Commission. Additionally, ORS recommend[s] that if the Commission were to approve the Company's proposal, the Company [should] be required to make the proper accounting adjustments to remove these costs from the

> Company's base rates to ensure no double counting of these labor cost[s] occur.

Tr. p.297.8, ll. 13-18.

ORS Regulatory Analyst Brandon Bickley reviewed DESC's plant operations, including fuel reports, performance data, and outages and statistics of power generation, to assess whether DESC "made reasonable efforts to maximize unit availability and minimize fuel costs." Tr. p. 290.1, l. 11, 290.5, ll. 1-3. Bickley found the outages at DESC's major coal and natural gas units, and at the VCSNS, reasonable. Tr. p. 290.4, ll. 6-20. Bickley also found DESC "made reasonable efforts to maximize unit availability and minimize fuel costs" in operating its power generating facilities during the Review Period. Tr. p. 290.5, ll. 1-3. Further, ORS "found the Company's maintenance schedules and projected data for its power plants for the Estimated and Forecasted Periods to be reasonable . . . [and] ORS does not recommend any adjustments to the Fuel Factors based on the Company's power plant operations.". Tr. p. 290.6, ll. 6-12.

Witness Kleckley testified and presented the results of the ORS Audit Department's examination of the Company's books and records pertaining to the Fuel Adjustment Clause operation for the Review Period, and the Company's estimated calculations for the months of January 2021 through April 2021. Tr. p. 268.2, ll. 9-14. Based on the ORS Audit Department's examination of the Company's books and records, and the Company's operation of the fuel cost recovery mechanism, Witness Kleckley verified that the Company's accounting practices are in compliance with S.C. Code Ann. §§ 58-27-865, 58-39-130, 58-39-140, and 58-40-20 (2015 & Supp. 2020) and prior Commission orders. Tr. p. 268. 2, l. 15 – p. 268.15, l. 11. Witnesses Seaman-Huynh and Bickley testified to the

ORS's findings resulting from its review of the Company's fuel expenses and power plant operations used in the generation of electricity during the Review Period. Tr. pp. 290.1-290.6, pp. 297.1-297.9. Based on ORS's review of the Company's operation of its generating facilities during the Review Period, Witness Bickley verified that the Company made reasonable efforts to maximize generating unit availability and minimize fuel costs during the Review Period and did not recommend any adjustment to the Fuel Factors of the Company based upon DECS's power plant operations. Tr. p. 290.5, l. 1 - p. 290.6, l. 12.

SCCCL and SACE did not present testimony related to the prudency of DESC's fuel purchasing practices, power plant operations, or fuel inventory management. Further, SCCCL and SACE did not present testimony addressing DESC's proposal to change its method of expensing labor costs associated with the design, analysis, and fabrication of nuclear fuel assemblies.

Based upon the evidence and testimony of the witnesses, the Commission finds DESC's fuel purchasing practices and policies, environmental costs, power plant operations, and fuel inventory management during the Review Period are just and reasonable. The Commission further finds DESC's proposal to include certain labor costs regarding nuclear fuel procurement, nuclear core design, safety analysis, fabrication surveillance, and final receipt inspection in the Base Fuel Component is just and reasonable and approved for implementation as of the reporting period that began January 1, 2021. DESC may not recover any other types of labor costs through the Base Fuel Component without prior Commission approval after review by interested parties, and shall make all

proper and necessary adjustments to remove these labor costs from its base rates in order to ensure that no double counting of these costs is incurred.

B. Net Energy Metering (NEM) Methodology

Witness Eric Bell, DESC Manager of Electric Market Operations, testified regarding the eleven (11) component methodology for DER avoided costs, as part of the net energy metering (NEM) methodology addressed in Order No. 2015-194. Tr. p. 112.7, l. 13-112.8, ll. 1-13. These eleven (11) approved components of value for NEM Distributed Energy Resources are:

1. +/- Avoided Energy
2. +/-Energy Losses/Line Losses
3. +/- Avoided Capacity
4. +/- Ancillary Services
5. +/- T&D Capacity
6. +/- Avoided Criteria Pollutants
7. +/- Avoided CO2 Emission Cost
8. +/- Fuel Hedge
9. +/-Utility Integration & Interconnection Costs
10. +/- Utility Administration Costs
11. +/- Environmental Costs

All 11 Components = Total Value of NEM Distributed Energy Resources

Tr. p. 112.8, ll. 1-13. Witness Bell further testified that, as directed by the Commission in Order No. 2020-244 in Docket No. 2019-184-E, the Company submitted the current components of value of NEM Distributed Energy Resources to the Commission by letter dated March 26, 2020. Tr. p. 112.8, ll. 14-16. Witness Bell stated that the Company updated these components of value by calculating the current value and a value for the ten-year levelized period, as set forth in Table 2 of his corrected direct testimony:

TABLE 2

	Current Period ($/kWh)	10-Year Levelized ($/kWh)	Components
1	$0.02877	$0.03163	Avoided Energy Costs
2	$0	$0.00379	Avoided Capacity Costs
3	$0	$0	Ancillary Services
4	$0	$0	T & D Capacity
5	$0.0000011	$0.0000011	Avoided Criteria Pollutants
6	$0	$0	Avoided CO_2 Emission Cost
7	$0	$0	Fuel Hedge
8	($0.00096)	($0.00096)	Utility Integration & Interconnection Costs
9	$0	$0	Utility Administration Costs
10	$0.00126	$0.00120	Environmental Costs
11	$0.02907	$0.03566	Subtotal
12	$0.00237	$0.00291	Line Losses @ 0.9245
13	$0.03145	$0.03857	**Total Value of NEM Distributed Energy Resources**

Tr. p. 112.10, Table 2.

Bell acknowledged ORS discovered that the Company had inadvertently recorded a scheduled maintenance outage at the Jasper Generating Station as running from October 24, 2021 to October 27, 2021, when it actually was scheduled to run from October 24, 2021, to November 27, 2021. Tr. p. 112.11, 8-15. Witness Bell further testified that, when investigating the error identified by ORS, the Company determined that a single output variable, titled "energy not served costs,[1]" was inadvertently omitted from the original calculations of the Company's avoided energy costs. Tr. p. 112.12, ll. 1-9. He testified that the Company updated its calculations to correct both errors, and those calculations

[1] Tr. p. 112.12, l.7.

were included in the Table 2 submitted as part of his corrected direct testimony. Tr. p. 112.12, ll. 11-19; See, Hearing Exhibit No. 4 (EHB-1). Witness Bell further explained DESC's evaluation of each component and its associated value (identified here by reference to the line numbers in the Table 2 above)[2] as follows:

LINE 1: The Company bases its calculation of avoided energy costs on its PURPA avoided cost values, except that it removes and separately states the cost of criteria pollutants and environmental costs in components of value on lines 6 and 10 in accordance with the methodology set forth in Commission Order No. 2015-194.

LINE 2: This component is set to $3.79/MWH for the 10-Year Levelized calculation pursuant to Commission Order No. 2020-244.

LINE 3: The Company has determined this component of value is zero but addresses certain non-zero costs under the integration costs in line 8.

LINE 4: The Company has determined that its NEM distributed resources do not avoid any transmission or distribution capacity and, thus, that the value of this category is zero. Because the transmission and distribution peak load occurs on a cold winter morning most often before sunrise and before a PV solar system provides any significant production, distributed solar does not assist in meeting the peak load and so the value of this category is zero.

LINE 5: The Company has determined that there is a positive avoided cost value of NOx and SO_2, which it has removed from the avoided energy costs category and stated those items here in accordance with Commission Order No. 2015-194.

[2] Tr. p. 112.13, l. 1 – p. 112.20, l. 15.

LINE 6: Commission Order No. 2015-194 states that this component of value is set to zero until such time as federal or state laws or regulations yield an avoidable cost for CO2 emissions. Thus, the Company has determined that the value of this category is zero because there presently are no such federal or state laws or regulations.

LINE 7: Because DESC does not hedge fuels for electric generation, the value of this category is zero.

LINE 8: This component of value was set to $0.96/MWH in Commission Order No. 2020- 244.

LINE 9: Because the administration costs of NEM Distributed Energy Resources are collected through a DER rider added to the fuel clause, the value of this component is zero.

LINE 10: As noted above, environmental costs have been separated from avoided energy costs and set forth here in accordance with the methodology from Commission Order No. 2015- 194.

LINE 11: Line 11 is a subtotal of the preceding amounts.

LINE 12: This category represents the cumulative marginal line losses experienced at a residential customer's meter.

LINE 13: Line 13 is the total value of NEM Distributed Energy Resources.

DESC Witness Rooks testified in support of the eleven (11) components of value for NEM Distributed Energy Resources as explained by Witness Bell and provided an updated Dominion "Rider to Retail Rates – Second Net Energy Metering for Renewable

Energy Facilities" tariff sheet,[3] and its proposed "Rider to Retail Rates – Third Net Energy Metering for Renewable Energy Facilities" tariff sheet.[4] Tr. pp. 183.9-183.12; Composite Hearing Exhibit Nos. 5 & 6 (AWR-6 thru AWR-9).

SCCCL and SACE Witness Beach made several recommendations and comments regarding the Company's updated components of value for the NEM Distributed Energy Resources methodology. Witness Beach recommended a value of $0.1428/kWh for solar, "which exceeds the retail rate," (Tr. p. 212.11, l. 2) based on his calculations in testimony he filed in Docket No. 2019-182-E and attached as Exhibit RTB-2 to his direct testimony (See, Hearing Exhibit 7):

Avoided Cost Component	**Value** *(25-year levelized $ per kWh)*
Energy	0.0383
Generation capacity	0.0135
Line losses	0.0049
Transmission capacity	0.0186
Distribution capacity	0.0227
Fuel Hedge	0.0335
GHG Compliance Costs	0.0112
Total	**0.1428**

DESC disagreed and as testified by Witness Bell, submitted the appropriate valuation is contained in Table 2 of his testimony and as set forth above. Witness Everett recommended the Commission accept the figures proposed by DESC. Tr. p. 155.16, ll. 4, 5; 155.26, ll. 15-19. Further, in Order Exhibit No. 1, the ORS and SCEUC agreed in this

[3] Composite Hearing Exhibit No. 6 (AWR-13).
[4] Composite Hearing Exhibit No. 6 (AWR-15).

proceeding "DESC's calculation of the NEM Methodology and method of accounting for avoided and incremental costs for NEM during the Review Period were reasonable and prudent, were consistent with methodology approved in Commission Order No. 2015-194, and complied with S.C. Code Ann. § 58-40-10, et seq. (2015)." (Stipulation, p. 4).

The Commission rejects Witness Beach's proposed valuation of NEM Distributed Energy Resources, finding much of the analysis he advances is more appropriate for the docket in which the bulk of his testimony originally was tendered, Generic Docket No. 2019-182-E. The Commission finds that Witness Beach's recommendation of a solar value is not appropriate because it is not consistent with the current methodology approved in Order No. 2015-194 and is in excess of the Company's retail rates, which contemplate the inclusion of all of the Company's costs.

a. Witness Beach recommended a value of 0.0383/kWh for avoided energy costs based on his calculations. Hearing Exhibit 7 (Exhibit RTB-2, p. 16, Table 8). He asserted that new "solar generation will displace the marginal source of electric energy on the Dominion system." Hearing Exhibit 7 (Exhibit RTB-2, p. 30, ll. 24-25). He stated the Company's ten-year levelized energy prices should be escalated over a 25-year period, with his 25-year price representing a 21 percent increase over the ten-year price. Hearing Exhibit 7 (Exhibit RTB-2, p. 30, l. 25 – p. 31, l. 13 and Figure 1).

Witness Bell testified a ten-year planning period is appropriate for determining the value of NEM Distributed Energy Resources. Tr. p. 121.8, ll. 19-20. Bell noted that, although Order No. 2015-194 does not prescribe a time period, Act No. 62 uses ten years for PURPA Qualified Facilities, and the Company believes this is the appropriate period

to use. Tr. p. 121.8, l. 20 through 121.9, l. 3. He noted that using longer periods to calculate avoided costs will result in customers overpaying for solar based on declining avoided costs. Tr. p. _121.9, ll. 3-4. He stated that the actual avoided cost is reduced as more solar is added over time, which results in customers paying more for solar in future years than the current avoided costs. Tr. p. 121.9, ll. 5-8. He noted that this practice also results in increased fuel costs.

Witness Everett testified Witness Beach's estimate of avoided energy costs rests on values that are outdated and that he uses an excessive annual growth rate to inflate the costs over 25 years. Tr. p. 155.8, l. 3-5. Everette noted Beach's estimate was based on out-of-date marginal energy costs and is inflated in two ways. Tr. p. 155.7, l. 20-155.8, ll. 1-3. First, Everett testified Beach estimates the value over 25 years while NEM methodology contemplates a ten-year period based on Act No. 62. Witness Everett opined this overstates the value by about ten percent. Tr. p. 155.8, ll. 5,6. Second, she asserted Beach escalated his value by about 6.7% annually between 2030 and 2045, even though his estimate greatly exceeds the 2.7% Compound Annual Growth Rate derived from EIA's "Annual Energy Outlook 2020," Table 13, "Natural Gas Supply, Disposition, and Prices, Reference Case." Tr. p. 155.8, ll. 7-12. Everette further stated Beach's estimate of avoided energy costs is unclear because the estimate seems to include criteria pollutants and avoided environmental costs in his calculation. Tr. p. 155.8, l. 16 through 155.9, ll. 1-7. Witness Beach responded that although new estimates "may change the starting point of [his] analysis,"[5] his conclusion that solar is undervalued would not change. He further states

[5] Tr. p. 216.7, l. 3-5.

that a ten-year period is not required because the Act No. 62 provisions regarding ten years pertain to power purchase agreements for utility scale generation. Tr. p. 212.13, ll. 6-14. He testified that distributed solar has an economic life of 25 to 30 years, and that its benefits will be significantly understated if it is valued only for the first ten years and then assumed to be zero. Tr. p. 216.8, ll. 1-6. Witness Beach further testified that he agrees with Witness Everett that costs related to criteria pollutants and environmental costs should be listed separately from avoided energy costs, but that these costs are not readily available to separate without access to the detailed production cost model outputs. Tr. p. 216.8, ll. 13-19.

The Commission finds DESC's calculation of avoided energy costs is appropriate and reasonable and consistent with the directives of Order No. 2015-194. The Commission further finds that a ten-year planning period is appropriate based on Act No. 62 as well as the nature of the programs in place and that using longer periods at this stage could result in the overpayment of avoided costs by customers. Further, the Commission finds that Witness Beach's failure to use the current values and his failure to exclude criteria pollutants and environmental costs from the analysis renders his determination of avoided energy costs fundamentally flawed.

b. Witness Beach recommended a value of $0.0135/kWh for avoided generation capacity costs. Hearing Exhibit 7 (Exhibit RTB-2, p. 16, Table 8). He based his calculation on a solar PV capacity contribution of 34% and thus asserts that "34% of a solar PV project's capacity may be assumed to contribute to meeting DESC's capacity needs in its peak load hours." Hearing Exhibit 7 (Exhibit RTB-2, p. 34, ll. 5-6). He testified

that $77.74/kW-year is an appropriate value for the avoided generation capacity costs. Hearing Exhibit 7 (Exhibit RTB-2, pp. 34-35).

Witness Bell noted in his testimony that Witness Beach's assertion is generally based on the testimony of another witness in another docket and that those assertions are inaccurate. Tr. p. 121.5, ll. 14-16. Witness Bell stated that "solar has a zero avoided generating capacity value because DESC's resource plans are based on winter peaks typically occurring before the sun rises in the morning and before solar has begun to generate." Tr. p. 121.5, ll. 16 through 121.6, l. 1. He also testified that Witness Beach's calculation does not consider the ten-year value assigned to avoided capacity costs as required by Order No. 2020-244, whereas DESC's proposals do use a ten-year value. Tr. p. 121.6, ll. 1-4. Witness Bell testified that there is no value assigned to this category because the Company's reserve margins currently are adequate, and it does not expect to add resources during the ten-year period. Tr. p. 121.6, ll. 4-5. Witness Bell further testified he disagrees with Witness Beach's use of a 34% solar contribution rate because, as noted above, the winter peak typically occurs before the sun rises. Tr. p. 121.6, l. 12. He stated that the winter peak is critical to consider because there is a higher winter reserve margin; the utility scale solar PPAs contribute to the summer peak but not the winter peak; and the peak load forecast is higher in the winter. Tr. p. 121.6, ll. 12-17. Bell stated Witness Beach identified situations when solar contributed to meeting the daily peak, but that is not the same as contributing to meeting the winter peak. Tr. p. 121.6, ll. 17-20. He noted that DESC's calculations and analyses "have consistently determined that additional levels of

stand-alone PV solar generation have no or almost no capacity value on the winter peak." Tr. p. 121.7, ll. 1-3.

Witness Everett testified Witness Beach's calculation of avoided generation capacity costs is not correct because it ignores the 11.8% solar contribution rate recently adopted by this Commission and was instead an unapproved contribution rate of 34%, nearly three times this Commission's approved value. Tr. p. 155.9, ll. 11-16. She stated that he also ignored the avoided generation capacity costs of $66.76/kW-year established in Docket 2019-184-E. Tr. p. 155.9, ll. 13-15. She testified applying these correct amounts resulted in a solar value of $7.88/kW and estimating the level of generation from a 1kW solar project over one year with a 23.8% capacity factor yields an estimate of $0.000379/kWh. Tr. p. 155.9, ll. 16-20. Beach responded he is not ignoring the Commission-approved value for capacity values but considers them incorrect and out-of-date. Tr. p. 216.9, ll. 1-11. He stated Everett's values do not reflect lifecycle benefits and do not adequately account for avoided capacity contributions of distributed solar. Tr. p. 216.9, ll. 5-7. He stated he believes his analysis is consistent with Act No. 62. Tr. p. 216.9, ll. 7-11.

The Commission finds DESC's calculation of avoided generation capacity costs is appropriate and reasonable. The Commission finds that Witness Beach's use of 34% for a solar contribution is inconsistent with the current methodological requirements of a 11.8% solar contribution. Furthermore, Beach's estimated solar contribution also fails to consider that solar does not assist in alleviating the winter peak, which occurs on DESC's system on a winter morning before the sun rises. The Commission also finds Beach's calculation

of avoided generation costs does not consider the avoided capacity costs established in Docket No. 2019-184-E of $66.76-kW-year and, instead, uses a higher rate that Witness Beach calculated. Because Witness Beach's analysis does not consider the values in effect at the time of this proceeding, his calculation is flawed and must be rejected.

c. Witness Beach stated DESC improperly assigned a value of zero to ancillary services, though he did not specifically quantify a value for that category in his analysis. Tr. p. 216.10, l.16 – p. 216.11, l. 2. Witness Bell responded that ancillary services, which "refers to the need to balance the load and generation on the Company's system,"[6] is zero because none of the current or anticipated DER generators can provide these services. Tr. p. 112.15, ll. 7-12. Witness Beach responded that avoided costs refers to the costs for utility resources that are not produced because of the use of distributed solar and, thus, the provision of ancillary services by the distributed solar is not relevant. Tr. p. 216.10, ll. 18-21.

The Commission finds that a zero value for ancillary services is appropriate and reasonable. Other than to say that none of the NEM Distributed Energy Resources calculation numbers should be zero, Witness Beach did not specifically quantify the value of ancillary services. DESC identified the basis for its determination that the value of this category is zero. The Commission therefore rejects Beach's assertions.

d. Witness Beach recommended a value of $0.0186/kWh for avoided transmission capacity costs. Hearing Exhibit 7 (Exhibit RTB-2, p. 16, Table 8). He explained that he applied the NERA regression method to compute his estimate and

[6] Tr. p. 112.15, ll. 7-12.

described his calculations as best practice. Hearing Exhibit 7 (Exhibit RTB-2, p. 38, ll. 3-21). He further recommended a value of $0.0227/kWh for avoided distribution capacity costs. Hearing Exhibit 7 (Exhibit RTB-2, p. 39, Tables 6 & 7, l. 21). He calculated this value using the same methodology as he applied to avoided transmission capacity costs. Hearing Exhibit 7 (Exhibit RTB-2, p. 39, Tables 6 & 7, l. 20).

Witness Bell testified because the most severe transmission and distribution peak loads presently occur on cold winter mornings on the Company's system, "most often before sunrise and always before significant production from PV solar systems," the value of transmission and distribution avoided costs is zero. Tr. p. 121.15, ll. 17-19. He further noted that even if there is some contribution from distributed solar, that contribution cannot be quantified or relied on "for planning or contingencies due to the intermittent nature of the resource." Tr. p. 121.15, ll. 19-21. He also testified that, on the distribution system, it is necessary to design a circuit for circumstances in which the circuit may experience stress and, with respect to solar, for when distributed solar is not supplying power. Tr. p. 112.6, ll. 4-7. He testified the distribution line must carry the load when DERs are generating and when they are not, and consequently, DERs do not provide any benefit with respect to avoiding transmission and distribution costs and appropriately have a zero value. Tr. p. 112.16, ll. 7-10.

Witness Everett disagreed with Witness Beach's calculations. Tr. p. 155.7. She stated, with respect to transmission costs, Witness Beach incorrectly used transmission costs not related to load growth. Tr. p. 155.11, ll. 22-27 through 155.12, ll. 1-2. She further stated Beach applied a solar capacity contribution value of 42.5% with no evidence

transmission costs are avoided as a result of solar generation, and further noted historical data from DESC shows that only 48% of on-site generation offsets customer use. Tr. p. 155.12, ll. 9-23. She testified Beach inflated his estimates too much based on his use of a 25-year period. Tr. p. 155.13, ll. 8-11. She testified DESC calculated avoided capacity costs for the purpose of evaluating energy efficiency programs and it calculated a value of $7.67/kW, which is 89 % lower than Witness Beach's estimate. Tr. p. 155.13, ll.18-21. However, she also noted the avoided transmission costs value remains zero because solar customer-generation does not offset transmission capacity needs. Tr. p. 155.14, ll. 3-7.

Witness Everett further testified that Witness Beach's estimate of distribution costs is overstated because he includes costs not related to peak demand growth. Tr. p. 155.14, ll. 11-13. Everette noted he also used a solar capacity contribution value of 35.6% without demonstrating that value is appropriate, and he incorrectly used the 25-year period. Tr. p. 155.14, ll. 14-15. She also noted DESC determined a value of $18.58/kW in distribution avoided costs for purposes of evaluating energy efficiency programs, which is 80% lower than the value estimated by Witness Beach. However, she noted, because the Company cannot rely on customer-generation to meet customer needs, the value of distribution avoided costs equals zero. Tr. p.155.15, ll. 10-18.

Witness Beach responded that an avoided transmission and distribution capacity benefit has been quantified in nearly every other jurisdiction, including by Duke utilities operating in South Carolina. Tr. p. 216.9, ll. 15-19. He further testified DESC refused to conduct a study to quantify the avoided transmission and distribution capacity costs of solar. Tr. p. 216.9, ll. 19-21.

In this proceeding, the Commission finds that a zero value for transmission and distribution capacity costs is reasonable and appropriate. As noted above, solar does not contribute to reducing the winter peak on the Company's system and, thus, a zero value for this category is warranted. The Commission rejects Witness Beach's calculation because he does limit his analysis only to transmission and distribution costs involving load growth. Further, he used a 25-year future period versus ten years and that his inflation adjustments are too high. In addition, the Commission finds the fact that other utilities may have transmission and distribution avoided costs based on their operating system does not mean that DESC has such avoided costs.

e. Witness Beach recommended a value for fuel hedging of $0.0335/kWh. Hearing Exhibit 7 (Exhibit RTB-2, p. 43, Table 8, l. 7). . He stated renewable generation provides a long-term hedge against fuel costs for a 25-year period. Hearing Exhibit 7 (Exhibit RTB-2, p. 40, l. 11-18). He recommended calculating this benefit using a methodology assuming that the Company contracts for future natural gas supplies today, then places the money needed to buy that gas in risk-free investments. Hearing Exhibit 7 (Exhibit RTB-2, p. 41, l. 5-11).

Witness Bell responded that DESC did not hedge natural gas purchases and, thus, a zero value is appropriate for this category. Tr. p. 121.5, ll. 3-4. Bell stated Beach equates renewables generation to a hedging program and proposes assigning a value based on that characterization, but that his proposal serves to double count this fuel cost benefit of renewables because the benefit already is captured in avoided energy costs. Tr. p. 121.5, ll. 4-8.

Witness Everett testified Witness Beach's analysis fails to account for the need to purchase gas when the renewable generators are not available, and also fails to consider the fact that gas prices during those times tend to be higher because demand is higher. Tr. p. 155.18, ll. 21-23, 25. She also noted gas prices may run higher during scarcity events, and Witness Beach did not consider the risk that scarcity events will occur when the level of renewable power is low. Tr. p. 155.18, ll. 24-25 and 155.19, ll. 1-3. She notes that the short-term value for DESC should be zero because the NEM methodology requires considering costs to offset short term costs and DESC does not hedge gas costs. Tr. p. 155.19, ll. 3-6.

Witness Everett further testified, with respect to the long-term hedging values noted by Witness Beach, avoided costs include some level of generation to meet load from a portfolio, which includes renewables. Tr. p.155.19, ll. 7-10. She stated this benefit grows larger as there is more renewable energy to displace gas generation. Tr. p. 155.19, ll. 11-13. Thus, she testified, including a hedging value based on the existence of renewables is double counting. Tr. p. 155.19, ll. 13-14. Witness Everett concluded by stating Witness Beach's description of hedging is flawed because gas hedging is a physical gas purchase agreement or a financial instrument that accounts for the difference in an agreed upon price and the actual market price, returning the difference to the utility. Tr. p. 155.20, 1-6. She asserted in both cases the payment occurs when the gas is delivered to the utility. Tr. p. 155.20, ll. 6-7. She noted that while the seller may be required to post some collateral to guard against the risk that the seller does not deliver if the price of gas increases, these collateral requirements would be small and not produce the cash outlay contemplated by

Witness Beach. Tr. p. 155.20, ll. 7-12. Consequently, she stated, the cost of hypothetical long-term hedging is equal to zero. Tr. p. _155.20, ll. 20-21. She further noted Witness Beach's approach did not actually hedge the cost of gas because the utility simply is placing funds aside to purchase gas in the future and loses the use of those funds in the interim. She found this not to be a hedge, but just the holding of funds until a future date. Tr. p. 155.21, ll. 1-6.

Witness Beach responded that Witness Everett misunderstood the nature of avoided costs with respect to the inclusion of some level of renewables because avoided costs are costs not taken because of the use of the renewable output of distributed solar. Tr. p. 216.10, ll. 5-9. He stated the avoided resources were largely gas-fired utility plants whose costs fluctuated with short-term gas prices. Tr. p. 216.10, ll. 7-9. He testified replacing this generation with fixed-price renewables avoids this cost-volatility and provides a long-term hedge to ratepayers. He stated the hedging value would be zero only if no fossil generation is avoided. Tr. p. 216.10, ll. 14, 15.

The Commission finds that a zero value for hedging is reasonable and appropriate. The Company does not hedge its fuel costs and, thus, the cost for this category would be zero. The Commission further finds Beach's hypothetical gas hedging analysis is not consistent with the actual fuel hedging contemplated by Order No. 2015-194 and, thus, is not appropriate for consideration in this proceeding.

f. Witness Beach recommended a value of $0.0049 for line losses. Hearing Ex. 7 (RTB Ex. 2, p. 16, Table 8.). Beach stated distributed solar avoids distribution line losses because most of the power exported from small customer-generated solar facilities

is consumed by the customer's immediate neighbors and, thus, avoids the need to deliver power to customers from remote utility-scale generation facilities. Hearing Exhibit 7 (Exhibit RTB-2, p. 36, ll. 1-15). He concluded avoided line losses from distributed solar "will be very similar to the avoided losses for power consumed behind the solar customer's meter." Hearing Exhibit 7 (Exhibit RTB-2, p. 36, ll. 10-11).

Witness Everett testified Witness Beach's calculation was based on an alternative analysis that was not adequately described. Tr. p. 155.22, 3-11. She noted his estimated losses were far in excess of the historically applied 7.55% and that he appears to apply different loss factors for capacity versus energy. Tr. p. 155.22, ll. 5-7. She recommended the Commission reject Witness Beach's calculation and instead use the current methodology of 7.55% until such time as the Commission may decide upon a different analysis in a proceeding convened for the purpose of evaluating the appropriate NEM Distributed Energy Resources methodology. Tr. p. 155.22, l. 14 through 155.23, l. 5. Witness Beach recognized the NEM Distributed Energy Resources methodology remains under consideration in Docket No. 2019-182-E and recommends that any revisions to the methodology in that docket should be applied to this docket. Tr. p. 221, ll. 1-5.

The Commission finds DESC's calculations of line losses are reasonable and appropriate at this time. Witness Beach's calculations are based on an alternative calculation and not the 7.55% historically applied under the methodology required by Order No. 2015-194. Because Witness Beach's analysis does not consider the values in effect at the time of this proceeding, his calculation is rejected.

g. Witness Beach recommended a value of $0.0112/kWh for GHG compliance costs. Hearing Exhibit 7. (Exhibit RTB-2, p. 16, Table 8). He stated that reducing future carbon emissions is a significant driver of utilities' IRPs and, thus, the value of reducing carbon should not be assumed at zero. Tr. p. 216.4, l. 7 – p. 216.5, l. 22. He testified that he calculated a value based on DESC's 2020 IRP adjusted for inflation, a conversion factor of one MMBtu of natural gas producing 117 pounds of CO_2, and a 6,550 Btu/kWh marginal system heat rate. Hearing Exhibit 7 (Exhibit RTB-2, p. 42, l. 22- p. 43, l. 2).

Witness Bell testified the value of CO_2 emission is zero because the Commission expressly recognized in Order No. 2015-194 that CO_2 emissions would be zero "until state or federal laws or regulations result in an avoidable cost on Utility systems for these emissions." Tr. p. 121.4, ll. 15-20. Consequently, because there is currently no federal or state law or regulation in this regard, the value properly is zero. Tr. p. 121.4, ll20-21 through 121.5, l. 1.

Witness Everett stated Witness Beach's calculation was inaccurate. Tr. p.155.17, l. 7. She also noted the NEM Methodology states that CO2 will be zero until such time that the state or federal laws or regulations include costs. Tr. p. 155.17, l. 7-9. She further testified the GHG costs Witness Beach referenced are dated because DESC has since refiled its IRP and included values for carbon ranging from $0/MT to $35/MT, with $12/MT being the expected case, but that figure will only come into effect in 2030. Tr. p. 155.17, ll. 18-21. She noted this would yield a level of $1.20/ton versus Witness Beach's calculation of $32.03/MT. Tr. p. 155.17, ll. 19-22. Witness Beach responded although the future regulation and costs for mitigating carbon emissions are not certain, DESC's IRP

makes clear that reducing future carbon emissions is a "significant driver of those plans"[7] and, thus, carbon costs are not zero because utilities are planning and spending money today to reduce those emissions. Hearing Exhibit 7 (Exhibit RTB-2, p. 42, ll. 13-20).

The Commission finds that a zero value for environmental costs is reasonable and appropriate. As Witnesses Bell and Everett noted, Order No. 2015-194 requires the use of a zero value until such time as federal or state statutory or regulatory requirements impose a cost in this regard. Witness Beach's analysis therefore conflicts with the type of carbon costs contemplated by Order No. 2015-194. Consequently, because Witness Beach's analysis does not consider the values in effect at the time of this proceeding, his calculation is rejected.

h. Witness Beach testified, based on his calculations of the NEM Distributed Energy Resources valuation methodology, distributed solar passes all cost effectiveness tests. Hearing Exhibit 7 (Exhibit RTB-2, p. 45, l. 12- p. 46, l. 3). He stated residential distributed solar appears to pass the Standard Practice Manual cost effectiveness tests. Hearing Exhibit 7 (Exhibit RTB-2, p. 29, ll. 7-8; p. 48, l. 22 – p. 50, l. 25; p. 49, ll. 4-5). He stated his methodology analyzes the benefits and costs from multiple perspectives of the key stakeholders, including the utility system as a whole, participating NEM/DER customers, and other ratepayers; considers a comprehensive list of benefits and costs that considers the location, diversity, and technologies of distributed generation; and analyzes the benefits and costs in a long-term, lifecycle time frame that corresponds to the useful life of the solar system. *Id.*

[7] Hearing Exhibit 7 (Exhibit RTB-2, p. 42, ll. 17-18).

Witness Everett responded that residential solar passes all of Witness Beach's cost effectiveness tests because he used inflated values for the NEM Distributed Energy Resources categories. Tr. p. 155.23, 11-13. She applied a series of tests based on the values of solar as determined by DESC and concludes that solar does not pass cost-effectiveness tests. Tr. p. 155.23, ll. 13-16 through 155.24, l. 1.

The Commission finds Witness Beach's cost-effectiveness analysis is not appropriate in this proceeding. Rather, the Commission must consider the appropriate values for NEM Distributed Energy Resources based on Order No. 2015-194 and subsequent orders interpreting and applying the NEM methodology. The Commission therefore rejects Witness Beach's proposals.

i. Witness Beach testified the Commission should use societal costs in assessing the effectiveness of NEM Distributed Energy Resources. Hearing Exhibit 7 (Exhibit RTB-2, p. 28, l. 17- p. 30, l. 4; p. 48, l. 22 – p. 50, l. 25; Figure 4; Table 11). He testified certain societal benefits can be quantified and others should be considered qualitatively. Tr. p. 212.8, ll. 7-22. Specifically, he testified the health benefits of reduced emissions of criteria pollutants, reduced methane leakage, the additional benefits of reduced carbon emissions, and land use benefits can be quantified. Tr. p. 212.8, ll. 7-22; p. 212.16, ll. 9–15. He further testified rooftop solar enhances the reliability and resiliency of customer electric service, that distributed solar enhances customers' freedom, choice, and engagement, and that rooftop solar leverages a new source of capital to expand South Carolina's clean energy infrastructure. Tr. p. 212.16, l. 9 – p. 216.17, l. 17.

Witness Bell noted none of the societal benefits identified by Witness Beach are included in the calculation required by Order No. 2015-194. Tr. p. 121.9, ll. 17-19. Bell stated those benefits should not be included because they are "not readily susceptible to objective calculation and, moreover, are not utility costs the Company can avoid." Tr. p. 121.9, ll. 20-21. Bell further testified, regarding Everette's testimony, federal and state tax credits include the value of the societal benefits of solar and, thus, including those again would be double counting. Tr. p. 121.9, l. 21 through 121.10, ll. 1-3.

Witness Everett testified benefits such as societal externality costs are difficult to quantify and dependent upon numerous and contentious assumptions. Tr. p. 155.25, ll. 9-11. She further noted externality costs are not avoided by the utility and, thus, including those costs in setting rates will cause the utilities' costs to increase and would result in a cost shift. She also testified if a utility must provide additional compensation for these externality costs, the utility will be required to charge customers for this additional compensation and cause the Commission to effectively become a taxing authority. Tr. p. 155.25, ll. 16-27. Witness Beach responded he estimates the quantifiable benefits of solar to be about 17 cents/kWh, which exceeds the value of federal and state tax credits to customers. Tr. p. 216.11, ll. 4-8.

The Commission rejects Witness Beach's recommendation to consider societal costs in this proceeding. As stated above, the issue of whether to include societal benefits in the analysis is not appropriate for consideration in this proceeding. Rather, the Commission must consider the appropriate values for NEM Distributed Energy Resources based on Order No. 2015-194 and subsequent orders interpreting and applying the NEM

methodology. The Commission therefore rejects Witness Beach's proposals regarding consideration of societal costs.

j. Witness Beach also testified all of the categories of benefits and costs in the value stack of NEM Distributed Energy Resources set forth in Order No. 2015-194 are quantifiable. Tr. p. 212.17, ll. 5-17. He stated that if,

> there is uncertainty about the magnitude of a specific benefit or cost, the default should not be to assign a zero value to that benefit or cost. Instead, the Commission should trust its expertise and judgment to establish a reasonable value for the benefit or cost based on an examination of several cases that span a range of reasonable values for such a benefit or cost.

Tr. p. 212.17, ll. 5-17. In response, Witness Bell testified if DESC uses "a zero value for any of the NEM Distributed Energy Resources categories, it is not a default value but is the product of careful analysis of the category characteristics as applied to DESC's system." Tr. p. 121.2, ll. 16-19.

Witness Everett testified similarly to Bell, stating DESC does not arbitrarily set values to zero and that the values are not "'set' to zero but rather calculated as zero." Tr. p. 155.5, ll. 15-16. Everette explained there are two steps to this process. First, it is necessary to quantify the avoided cost value for each component. Tr. p. 155.5, ll. 16-17. Second, it is necessary to determine the amount of energy or capacity that is avoided through customer generation. Tr. p. 155.5, ll. 17-19. She testified that in Step 1, Witness Beach provided an estimate of the avoided cost value using his own calculations, methodologies, assumptions, and data that are inconsistent with approved values or are erroneous. Tr. p. 155.5, l. 20 through 155.6, l. 3. She further testified that in Step 2,

Witness Beach deviates from Commission approved estimates of the contribution of customer generation to avoiding these costs. Tr. p. 155.6, ll. 4-6. She also testified that because solar does not avoid any capacity for the Company, the value of these categories properly is zero. Tr. p. 155.5, ll. 14-16.

Witness Beach responded that setting the values at zero versus calculating them at zero is a distinction without a difference. Tr. p. 216.12. ll. 4-19. He testified that the Company assumes that capacity costs cannot be avoided by customer solar generation, which is inconsistent with utility experiences across the country, including in the southeast. *Id.* He further testified that just because a category originally was included in the methodology as a placeholder does not mean that the value should always be zero, but that inclusion was done at that time only to facilitate a settlement. Tr. p. 216.5, ll. 5-22. He stated the Commission should reevaluate the value of distributed solar and that his testimony in this proceeding simply is reiterating his position in Docket No. 2019-182-E. Tr. p. 216.6, ll. 3-10.

The Commission finds DESC's calculations are appropriate and that, in some instances and as recognized in the discussions above, it is reasonable that there will be a zero value. As Witness Everett stated, Order No. 2015-194 contemplates that some values will be zero at present until certain conditions are satisfied. In other instances, a category may have a zero value for DESC even if other utilities have a positive value based on the nature of DESC's system.

Witness Morgan testified that the Company updated the value of NEM Distributed Energy Resources as set forth in Witness Bell's testimony. Tr. p. 279.5, ll. 14-19. He

testified the Company is seeking a value of NEM distributed generation of $0.03145 over a one-year planning horizon and $0.03857 over a ten-year planning horizon. Tr. p. 279.5, ll. 14-19.

The Commission finds that the Company's recommendations for the value of NEM Distributed Energy Resources are reasonable and appropriate for the reasons set forth above.

C. Base Fuel Cost

Allen Rooks, DESC Manager of Regulations, testified to DESC's base fuel costs and its components for both the Review and Forecast Periods. Tr. p. 183.20, ll. 10-12 – p. 183.22, ll. 1-11. Rooks testified that the actual base fuel over-collected balance was $52,090,275 as of December 31, 2020, and the over-collected balance is projected to be $44,697,895 at the end of April 2021. Tr. p. 183.24, ll. 1-4. Rooks also testified DESC proposes to use a Base Fuel Component of 2.413 cents per kWh for "to recover all base fuel costs in the forecast period in addition to returning to customers the projected over-collected balance by the end of April 2022. Tr. p. 183.4. He further testified that the Company is proposing that Variable Environmental & Avoided Capacity Cost Components be reduced for all classes of customers for the period May 2021-April 2022; that DER Avoided Cost components be slightly increased for Residential and Large General Service customer classes, slightly decreased for the Medium General Service customer class, and maintained for the Small General Service customer class; and that the Company's DER Incremental Cost Component per account per month be maintained at

$1.00 for Residential and $100 for Large General Service customers and increased to $6.15 for Small/Medium General Service customers. Tr. p. 183.32, ll. 3-16.

ORS Senior Auditor William Kleckley reviewed DESC's fuel recovery calculations and estimated fuel costs, and he testified: "it is ORS's opinion, that subject to the Company's Adjustments, the Company's accounting practices are in compliance with S.C. Code Ann. §§ 58-27-865, 58-39-130, 58-39-140, 58-40-20, and prior Commission orders." Tr. p. 268.14, ll. 16-19. He further testified that, as of December 2020, the Company had a base fuel costs over-recovery balance of $52,090,275, a variable environmental and avoided capacity over-recovery balance of $3,808,246,a DERP avoided costs over-recovery balance of $738,982, and a DERP incremental costs under-recovery balance of $5,620,037. Tr. p 268.14, l. 22 - p. 268.15, ll. 1-5. As shown on Hearing Exhibit No. 9 (WCK-5), page 2 of 2, as of April 2021, ORS projects the Company to have an estimated base fuel costs over-recovery balance of $44,697,895, an estimated variable environmental and avoided capacity over-recovery balance of $4,873,907, and an estimated DERP avoided costs over-recovery balance of $507,871. Tr. p. 268.15, ll. 6-9.

SCCAL and SACE did not present testimony regarding DESC's proposed base fuel component.

As reflected in the evidence of record, no party challenged DESC's proposed Base Fuel Cost Component. Based upon the evidence, the testimony of the witnesses, and the Stipulation, the Commission finds the proposed fuel rates, combined with DESC's proposals in the DSM and Pension Dockets, would increase residential bills by $1.59 per

month, or 1.30%, compared to current rates, and finds DESC's Base Fuel Component is just and reasonable and consistent with section 58-27-865.

D. Distributed Energy Resources

Mark Furtick, DESC's Advisor for Renewable Energy Programs, testified regarding DESC's Distributed Energy Resources programs (DER) during 2020, and the program's projection of costs for the period of January 1, 2021 to April 30, 2022 (Forecast Period). Tr. p. 98.1, ll. 4-5 through p. 98.2, l. 4-7. He also discussed the performance of the Company's DER programs during the Review Period, and explained that these programs include offering utility-scale DER programs, customer-scale Net Energy Metering (NEM) incentives, Performance Based Incentives, Bill Credit Agreement program, and the Community Solar program. Tr. p. 98.4, l. 18 – p. 98.5, l. 5. Furtick asserted DESC met the goal of 1% participation in customer generator DER programs. Tr. p. 98.8.

Witness Furtick testified that, as a result of DESC's offering of solar programs,

> the balance of DER program costs at the end of the Review Period totaled ($738,982) in avoided costs and an under-collected balance of $5,620,037 in incremental costs. For the period January 1, 2021, through April 30, 2022, the Company projects that DER program costs will include $9,880,760 in avoided costs and $26,824,649 in incremental costs.

Tr. p. 98.3, ll. 9-12.

As to utility-scale DER programs, Furtick testified "DESC has achieved the 1% goal . . . set forth in Act 236." Tr. p. 98.5, ll. 14-15. Furtick also testified as to DESC's

actions towards meeting its customer-scale DER programs, and relayed DESC met its 1% customer-scale goal. Tr. p. 98.5-98.10, ll.16-18.

Allen Rooks, DESC Manager of Regulation, also testified as to DESC's DER avoided and incremental costs in the Review and Forecast Periods. Tr. p. 183.28, l. 5 through 183.32, l. 16. Rooks noted the proposed DER avoided costs component would result in a "slight increase for the Residential and Large General Service customer classes, a slight decrease for the Medium General Service customer class, while maintaining the component at the current amount for the Small General Service customer class." Tr. p. 183.32, ll. 5-8. Witness Rooks testified that, as shown in Composite Hearing Exhibit No. 5 (AWR-7), the Company is recommending the following DER Avoided Cost components for theperiod May 2020 through April 2021: 0.42 cents per kWh for the Residential rate class; 0.37 centsper kWh for the Small General Service rate class; 0.29 cents per kWh for the Medium General Service rate class; and 0.20 cents per kWh for the Large General Service rate class. DESC also proposed an increase in its DER incremental cost component for Small and Medium General Service customers, while the fees for Residential and Large General Service customers would remain the same. Tr. p. 183.32, ll. 12-16. Rooks testifiedthat, as reflected in Composite Hearing Exhibit No. 6 (AWR-9), the Company's DER program Incremental Costs by class should be: $1.00 per account per month for the Residential rate class; $6.15 per account per month for the Small/Medium General Service rate class; and $100.00 per account per month for the Large General Service rate class. As noted above, Witness Rooks sponsored the Company's proposed "Adjustment for Fuel, Variable Environmental & Avoided

Capacity, and Distributed Energy Resource Costs" tariff, as reflected in Composite Hearing Exhibit No. 6 (AWR-11).

Witness Furtick further testified that based upon his experience and opinion, the Company has achieved the utility-scale and customer-scale goals as prescribed by S.C. Code Ann. § 58-39-130 (2015). As of December 31, 2020, DESC has nine solar farms totaling 48.16 MW interconnected to DESC's distribution system as part of the Company's approved DER program. Tr. p. 98.5, ll. 11-15. DESC also has 11,338 customers participating in its customer-scale DER programs as of December 31, 2020, providing approximately 91.03 MW of solar generating capacity on the Company's system. Tr. p. 98.9, ll. 1-12.

Witness Rooks testified that the proposed adjustment to fuel rates reflects the true-up of the updated avoided costs, variable integration charges, and NEM methodology costs approved by the Commission in Docket No. 2019-184-E with those costs remaining in effect since Docket No. 2018-2-E. Tr. p. 183.15, p. 193, ll. 2-4. He noted that the Company is planning to book this true-up in the first quarter of 2021 and that this true-up is included in the DER Avoided and Incremental Costs forecasts included in Composite Hearing Exhibit No. 5 (AWR-6) and Composite Hearing Exhibit No. 6 (AWR-8). Tr. p. 183.12, ll. 1-11. He testified that the effect of the true up is an increase to DER Avoided Costs of $48,627 and an increase to DER Incremental Costs of $250,939. *Id.*

Witness Furtick also testified that DESC had achieved Act 236's net metering limit or cap of 2% in 2019 and that, by letter dated May 16, 2019, in Docket No. 2014-216-E, had "informed the Commission that it had achieved the 2.0% NEM threshold and

that it had not accepted NEM applications submitted after May 3, 2019." Tr. p. 98.6, ll. 16-17. Witness Furtick noted, however, that, in Act No. 62 of 2019 ("Act 62"), the South Carolina General Assembly eliminated the 2% NEM threshold previously found in S.C. Code Ann. § 58-40-20(B) (2015). Tr. p. 98.6, ll. 18-21. Witness Furtick further testified that, accordingly, in order to comply with Act 62, DESC previously submitted two revised tariffs to the Commission. Tr. p. 98.6, l. 21 – p. 98.7, l. 6. The first, a 'Rider to Retail Rates – Second Net Energy Metering for Renewable Energy Facilities' tariff, "reflects the closure of NEM 2.0 effective May 4, 2019." Tr. p. 98.6, l. 21 – p. 98.7, l. 2. The second, a 'Rider to Retail Rates – Third Net Energy Metering for Renewable Energy Facilities' tariff, "eliminates the 2% NEM threshold and makes net energy metering available to those customers who apply for it from May 17, 2019, through May 31, 2021." Tr. p. 98.7, ll. 4-5. Mr. Furtick notes that these tariffs were approved by the Commission in Order No. 2019-392, dated May 29, 2019. Tr. p. 98.7, ll. 5-6.

Regarding the Company's Community Solar program, Witness Furtick testified that Springfield Solar, a 6 MW facility in Orangeburg County, and Nimitz Solar, an 8 MW facility in Jasper County, entered commercial operation in June 2018, and that Curie Solar, a 2 MW facility in Hampton County, entered commercial operation in February 2019. Tr. p. 98.10, ll. 1-4. According to Witness Furtick, as of December 31, 2020, 1,095 customers have either purchased or subscribed to 15.968 MW of the available 16 MW of community solar capacity. Tr. p. 98.10, ll. 5-13. The remaining 0.032 MW of capacity is reserved for Low-Income customers and will be filled via a separate waitlist created by

the marketing of DESC, Clean Energy Collective, and eight Community Assistance Agencies. *Id.*

ORS Witness Morgan testified that the Company's DER program calculations comply with Act No. 236 of 2014 and Commission Orders, and that the Company's calculations support DESC's proposed DER program charges Tr. p. 279.5, ll. 6-11. He further testified that, as testified to by Witness Rooks and in compliance with Commission Order No. 2019-229-E issued in Docket No. 2019-2-E, the Company will in the first quarter of 2021 record its true-up of the updated avoided cost rates, the value of NEM Distributed Energy Resources, and the Variable Integration Charges as reflected in Composite Hearing Exhibit No. 5 (AWR-6) and Composite Hearing Exhibit No. 6 (AWR-8). Tr. p. 279.6, ll. 6-14. He further testified that the effect of recording these true ups will be an increase to DER avoided costs of $48,627 and an increase to DER incremental costs of $250,939. *Id.*

Witness Morgan further testified that the Company calculated the NEM incentive using themethodology approved by Commission Order No. 2015-194. Tr. p. 279.5, ll. 20-21. He stated that the Company determined the difference in the expected revenues from NEM customers with and without DER programs in place. Tr. p. 279.5, l. 23 – p. 279.6, 1. The Company then calculated the value of the customers' distributed generation using the NEM tariff approved in Commission Order No. 2020-331 and determined the NEM incentive by dividing the outstanding revenue by the number of kilowatt hours the customers of each applicable rate schedule generated. Tr. p. 279.6, ll. 1-6. He stated that ORS found the Company's proposed tariffs as included in Composite Hearing Exhibit No.

6 (AWR-8) and (AWR-9) and supporting calculations to be reasonable and in line with the methodology approved by Commission Order No. 2015-194. Tr. p. 282, ll. 20-22.

SCCCL and SACE did not present testimony regarding DESC's DER programs during the Review Period.

The Commission finds the evidence presented indicates DESC offered DER programs and met its statutorily designated goals as set by section 58-39-130. The Commission further finds DESC's DER programs and the associated costs are just and reasonable.

V. FINDINGS OF FACT

After review of all evidence presented at the hearing and the discussion set forth above, the Commission makes the following findings of fact as well as any findings of fact stated above:

1. DESC's fuel purchasing practices and policies, power plant operations, and fuel inventory management were reasonable and prudent for the Review Period pursuant to section 58-27-865 of the South Carolina Code of Laws (2015).

2. DESC met the utility-scale and customer-scale goals of section 58-39-130 of the South Carolina Code of Laws, and reasonably and prudently incurred costs to implement its DER program, as approved in Commission Order No. 2015-512.

3. The updated components of value for NEM Distributed Energy Resources as shown in Table 2 on Page 10 of the corrected direct testimony of DESC Witness Bell (Tr. p. 112.10, Table 2) and as set forth above on page 21 of this Order are reasonable and

prudent, comply with the NEM methodology approved by the Commission in Order No. 2015-194, and satisfy the requirements of section 58-40-10 to -20 (2015, Supp. 2020).

4. DESC offered DER programs and took steps to fulfill its DER goals approved by the Commission in Order No. 2015-194, which programs and steps were just and reasonable, complied with Order Nos. 2015-194 and 2015-512, and were designed to meet DESC's statutorily designated goals as set by S.C. Code Ann. § 58-39-130 (2015).

5. As a result of DESC's efforts to provide the DER programs, the over-collected balance of the DER program costs as of December 31, 2020, totaled $738,982 in avoided costs and an under-collected balance of $5,620,037 in incremental costs, which costs are reasonable and prudent.

6. DESC's proposed DER Avoided Cost Components by class are reasonable and prudent. DESC's proposed monthly per account DER Incremental Cost Components by class properly allocate DESC's DER program incremental costs and are reasonable and prudent.

7. DESC's proposed "Adjustment for Fuel, Variable Environmental, & Avoided Capacity, and Distributed Energy Resource Costs" tariff sheet, including the rates, terms, and conditions, is lawful, just, and reasonable.

8. Approval of the Stipulation is consistent with the standards for fuel review proceedings conducted pursuant to S.C. Code Ann. § 58-27-865 (2015). The Stipulation allows recovery by DESC of fuel costs as precisely and promptly as possible and in a manner to assure public confidence and minimize abrupt changes in charges to customers. Additionally, the Commission finds and concludes that the Stipulation, while being final

and conclusive for the Review Period, affords the Stipulating Parties with the opportunity to review costs and operational data in future fuel review proceedings conducted pursuant to S.C. Code Ann. § 58-27-865 (2015). As such, it is in the public interest as a reasonable resolution of the issues in this case. We also find that the resolution of issues among the Stipulating Parties as set forth in the Stipulation does not appear to inhibit economic development.

VI. CONCLUSIONS OF LAW

Based upon the findings of fact herein and the record, the Commission makes the following conclusions of law:

1. The Stipulation, incorporated herein and attached as Order Exhibit 1 to this Order, is a reasonable resolution to the issues in this docket and is in the public interest.

2. The fuel purchasing practices and policies, power plant operations, and fuel inventory management of DESC, as reviewed pursuant to section 58-27-865 of the South Carolina Code of Laws (2015), are just and reasonable.

3. DESC's proposed revisions to its "Adjustment for Fuel, Variable Environmental, & Avoided Capacity, and Distributed Energy Resource Costs" tariff sheet as reviewed pursuant to sections 58-27-865 and 58-39-140, are just and reasonable.

4. The updated components of value for NEM Distributed Energy Resources, listed in Table 1 herein comply with the NEM methodology approved in Order No. 2015-194, properly evaluate the categories of potential costs or benefits to DESC's system, and satisfy the requirements of sections 58-40-10 to -20.

5. DESC's proposed revisions to its "Rider to Retail Rates – Second Net Energy Metering for Renewable Energy Facilities" and "Rider to Retail Rates – Third Net Energy Metering for Renewable Energy Facilities" tariff sheets are just and reasonable.

6. The DER programs DESC offered during the Review Period were just and reasonable and complied with Commission Order Nos. 2015-194 and 2015-512.

7. DESC's proposed monthly per kWh DER Avoided Cost Components by class are just and reasonable.

8. DESC's proposed monthly per account DER Incremental Cost Components by class are just and reasonable.

IT IS THEREFORE ORDERED:

1. The Stipulation (Order Exhibit 1) is adopted and approved.

2. The fuel purchasing practices and policies, power plant operations, fuel inventory management, and all other matters associated with S.C. Code Ann. § 58-27-865 (2015) of DESC are reasonable and prudent for the period January 1, 2020, through December 31, 2020.

3. The tariff sheet entitled "Adjustment for Fuel, Variable Environmental, & Avoided Capacity, and Distributed Energy Resource Costs" is approved for DESC bills rendered on, during, and after its first billing cycle in May, 2021.

4. The updated components of value for NEM Distributed Energy Resources listed in the table below comply with the NEM methodology approved by the Commission in Order No. 2015-194, properly evaluate and/or quantify all categories of potential costs

or benefits to DESC's system, and satisfy the requirements of section 58-40-10 to -20 of the South Carolina Code (2015).

	Current Period ($/kWh)	10-Year Levelized ($/kWh)	Components
1	$0.02877	$0.03163	Avoided Energy Costs
2	$0	$0.00379	Avoided Capacity Costs
3	$0	$0	Ancillary Services
4	$0	$0	T & D Capacity
5	$0.0000011	$0.0000011	Avoided Criteria Pollutants
6	$0	$0	Avoided CO_2 Emission Cost
7	$0	$0	Fuel Hedge
8	($0.00096)	($0.00096)	Utility Integration & Interconnection Costs
9	$0	$0	Utility Administration Costs
10	$0.00126	$0.00120	Environmental Costs
11	$0.02907	$0.03566	Subtotal
12	$0.00237	$0.00291	Line Losses @ 0.9245
13	$0.03145	$0.03857	**Total Value of NEM Distributed Energy Resources**

5. The tariff sheets entitled "Rider to Retail Rates-Second Net Energy Metering for Renewable Energy Facilities" and "Rider to Retail Rates-Third Net Energy Metering for Renewable Energy Facilities" are approved for use by DESC on, during, and after its first billing cycle in May, 2021.

6. DESC's DER programs offered during the Review Period were reasonable and prudent, complied with Commission Order Nos. 2015-194 and 2015-512, and were designed to meet DESC's statutorily designated goals as set by S.C. Code Ann. § 58-39-130 (2015).

7. The monthly DER Avoided Cost Components by class are approved for DESC bills rendered on, during, and after its first billing cycle in May 2021.

8. DESC's proposed monthly per account DER Incremental Cost Components by class as set forth below, are approved for DESC bills rendered on, during, and after its first billing cycle in May 2021.

Class	Monthly Per Account DER Incremental Cost Component
Residential	$ 1.00
Small & Medium Gen. Svc.	$ 6.15
Large General Service	$ 100.00

9. DESC shall establish its Base Fuel Cost Component, Variable Environmental & Avoided Capacity Cost Components and Total Fuel Cost Factors as set forth below, and these amounts shall be effective for use in DESC bills rendered on and after the first billing cycle of May 2021.

Class	Base Fuel Cost Component (¢/kWh)	Variable Environmental & Avoided Capacity Cost Component (¢/kWh)	DER Avoided Cost Component (¢/kWh)	Total Fuel Costs Factor (¢/kWh)
Residential	2.413	0.068	0.042	2.523
Small General Service	2.413	0.058	0.037	2.508
Medium General Service	2.413	0.046	0.029	2.488
Large General Service	2.413	0.031	0.020	2.464
Lighting	2.413	0.000	0.000	2.413

10. DESC shall track all of the over-recovery or under-recovery of costs related to the Jasper Generating Station outage forecast error, and these costs shall be addressed in next year's annual review of base rates of fuel costs for DESC.

11. DESC's proposal to include certain labor costs regarding nuclear fuel procurement, nuclear core design, safety analysis, and fabrication surveillance and final receipt inspection in the Base Fuel Component beginning with the reporting period that started January 1, 2021 is approved. The Commission notes that this change will result in a better matching of the recognition of the expenses of the fuel assemblies with when the assemblies actually are used and will also serve to facilitate the uniformity of DESC's procedures with its related companies. DESC shall not recover any other types of labor costs through the Base Fuel Component without prior Commission approval after review by interested parties. DESC shall make all proper and necessary adjustments to remove these labor costs from its base rates to ensure that no double counting of these costs occurs. DESC shall report to the Commission on these adjustments in its pending rate case in Docket 2020-125-E.

12. DESC shall eliminate its "Rider to Residential Rates and Time-of-Use Demand Rate 28 – Net Metering for Renewable Energy Facilities" because the Rider terminated on December 31, 2020, and because DESC has transitioned all customers previously taking service under this rider to other eligible rate schedules.

13. The Net Energy Metering methodology established in Order No. 2015-194 is appropriate to use in this docket. However, if the Net Energy Metering valuation methodology currently established in Order No. 2015-194 changes with the issuance of the Commission's final order in the generic docket regarding Net Energy Metering (Docket No. 2019-182-E), DESC shall recalculate the DER incentive and other components which may change as a result of that order. DESC shall file its recalculations with the

Commission and shall provide its recalculations to the parties in this docket. At that time, the parties may propose next steps to account for any differences.

14. DESC shall file with the Commission the tariff sheets and rate schedules approved by this Order, and all other retail tariff sheets, within ten (10) days of receipt of this Order and shall serve copies on all Parties. The fuel rates reflected in each tariff sheet shall be consistent with the components and factors set forth in this Order. DESC shall electronically file the revised tariffs in a text-searchable PDF format using the Commission's DMS System (https://dms.psc.sc.gov/). DESC shall also file an additional copy via e-mail to etariff@psc.sc.gov to be included in the Commission's Electronic Tariff system (https://etariff.psc.sc.gov). DESC shall provide a reconciliation of each tariff rate change approved in this Order to each tariff rate revision filed in the Electronic Tariff system. Such reconciliation shall include an explanation of any differences and DESC shall submit this information separately from DESC's Electronic Tariff filing. DESC shall reference this Order and its effective date at the bottom of each page of each tariff sheet.

15. DESC shall comply with the notice requirements set forth in section 58-27-865(B) (2015).

16. DESC shall continue to file its monthly reports as previously required.

17. DESC shall account monthly to the Commission and to ORS for the differences between the recovery of fuel costs through base rates and the actual fuel costs experienced by booking the difference to revenues with a corresponding deferred debit or credit. ORS shall monitor the cumulative recovery amount.

18. DESC shall submit monthly reports of fuel costs and scheduled and unscheduled outages of generating units with a capacity of 100 megawatts or greater to the Commission and to ORS.

19. This Order shall remain in full force and effect until further Order of the Commission.

IT IS SO ORDERED:

Florence P. Belser, Vice Chairman
Public Service Commission of
South Carolina

BEFORE

THE PUBLIC SERVICE COMMISSION OF

SOUTH CAROLINA

DOCKET NO. 2021-2-E

April 1, 2021

IN RE:

Annual Review of Base Rates for Fuel Costs for Dominion Energy South Carolina, Inc.	)))	**STIPULATION**

This Stipulation is made by and between the South Carolina Office of Regulatory Staff ("ORS"), Dominion Energy South Carolina, Inc ("DESC" or "Company") and the South Carolina Energy Users Committee ("SCEUC") (collectively referred to as the "Parties" or sometimes individually as "Party");

WHEREAS, the above-captioned proceeding has been established by the Public Service Commission of South Carolina ("Commission") pursuant to the procedure established in S.C. Code Ann. § 58-27-865 (2015), and the Parties to this Stipulation are parties of record in the above-captioned docket;

WHEREAS, the period under review in this docket is January 1, 2020, through December 31, 2020 ("Review Period");

WHEREAS, the Parties have varying legal positions regarding certain issues in this proceeding;

WHEREAS, the Parties have engaged in discussions to determine if a stipulation on certain issues would be in their best interest;

WHEREAS, following these discussions the Parties have each determined that their interests and the public interest would be best served by stipulating certain matters in the above-captioned case under the terms and conditions set forth below:

1. The Parties agree to stipulate into the record before the Commission this Stipulation.

2. The Parties agree to those items set out immediately below, and this Stipulation is hereby adopted, accepted, and acknowledged as the agreement of the Parties.

A. STIPULATIONS WITH RESPECT TO TESTIMONY AND CROSS-EXAMINATION

A.1. The Parties further agree to stipulate into the record the pre-filed direct testimony and exhibits of the following witnesses without objection, change, amendment, or cross-examination, with the exception of changes comparable to that which would be presented via an errata sheet or through a witness noting a correction.

a. DESC witnesses:

   i. Tom A. Brookmire

   ii. George A. Lippard

   iii. Henry E. Delk, Jr.

   iv. Rose M. Jackson

b. ORS witnesses:

   i. Brandon S. Bickley

   ii. William C. Kleckley

   iii. O'Neil O. Morgan

   iv. Michael L. Seaman-Huynh

The Parties further agree to stipulate into the record the pre-filed amended direct testimony and exhibits of the following witnesses without objection, change, amendment, or cross-examination, with the exception of changes comparable to that which would be presented via an errata sheet or through a witness noting a correction.

c. DESC witnesses:

i. Michael D. Shinn

ii. Allen W. Rooks

iii. Eric H. Bell

The Parties further agree to stipulate into the record the pre-filed corrected, responsive, rebuttal, and surrebuttal testimony and exhibits of the following witnesses without objection, change, amendment, or cross-examination, with the exception of changes comparable to that which would be presented via an errata sheet or through a witness noting a correction.

d. DESC witnesses:

i. Allen W. Rooks (Corrected and Responsive)

ii. Margot Everett

iii. Eric H. Bell

e. ORS witnesses:

i. William C. Kleckley (surrebuttal)

ii. O'Neil O. Morgan

With respect to this Stipulation, Company witness Rooks is the witness designated to be primarily responsible for providing support for the Stipulation at the hearing scheduled in this case.

B. STIPULATIONS WITH RESPECT TO NET ENERGY METERING AND DISTRIBUTED ENERGY RESOURCES, FUEL EXPENSES AND POWER PLANT OPERATIONS, FUEL FACTORS, AND OTHER ITEMS

Net Energy Metering ("NEM") and Distributed Energy Resources ("DER")

B.1. Without constraining, inhibiting, or impairing their arguments or positions in future proceedings, the Parties agree as follows in this proceeding:

a. DESC's calculation of the NEM Methodology and method of accounting for avoided and incremental costs for NEM during the review period of January 1, 2020, through December 31, 2020 ("Actual Period"), were reasonable and prudent, were consistent with methodology approved in Commission Order No. 2015-194, and complied with S.C. Code Ann. § 58-40-10, *et seq.* (2015).

b. DESC has met the utility-scale and customer-scale goals as prescribed by S.C. Code Ann. § 58-39-130 (2015). During the Actual Period, DESC reasonably and prudently incurred costs in implementing the Company's Distributed Energy Resource Program, as approved in Commission Order No. 2015-512.

c. The cumulative balances of DESC's DER program costs as of December 31, 2020, totaled an over-collected balance of $738,982 in avoided costs and an under-collected balance of $5,620,037 in incremental costs, which are reasonable and prudent. The cumulative balances of DESC's DER program costs as of April 30, 2021, are projected to be an over-collected balance of $507,871 in avoided costs and an under-collected balance of $7,100,680 in incremental costs, which are reasonable and prudent.

d. DESC reasonably projected its DER program costs for the period January 1, 2021, through April 30, 2022, which are accurately reflected in Corrected Exhibit Nos.

___ (AWR-6) through ___ (AWR-9) attached to the direct testimony of Company witness Rooks.

e. DESC's proposed DER Avoided Cost Component amounts by class, as set forth below, are reasonable and prudent, and, if approved by the Commission, shall become effective for the period beginning with the first billing cycle of May 2021.

Class	DER Avoided Cost Component (¢/kWh)
Residential	0.042
Small General Service	0.037
Medium General Service	0.029
Large General Service	0.020

f. DESC's proposed monthly per account DER Incremental Cost Components by class, as set forth below, properly allocate DESC's DER program incremental costs, are reasonable and prudent, and, if approved by the Commission, shall become effective for the period beginning with the first billing cycle of May 2021.

Class	Monthly Per Account DER Incremental Cost Component
Residential	$ 1.00
Small & Medium Gen. Svc.	$ 6.15
Large General Service	$ 100.00

g. The NEM Riders to Retail Rates, entitled Second Net Energy Metering for Renewable Energy Facilities and Third Net Energy Metering for Renewable Energy Facilities, attached hereto as Attachments A and B, including the rates, terms and conditions, are lawful, just, and reasonable, and, if approved by the Commission, shall become effective for the period beginning with the first billing cycle of May 2021.

Fuel Expenses and Power Plant Operations

B.2. ORS' review of DESC's operation of its generating facilities resulted in ORS concluding that DESC made reasonable efforts to maximize unit availability and minimize fuel costs. Additionally, ORS determined that DESC took appropriate corrective action with respect to outages that occurred during the Actual Period. Further, ORS concluded that, subject to any adjustments set forth in ORS's pre-filed direct testimony, DESC's accounting practices are in compliance with S.C. Code Ann. § 58-27-865 (2015).

B.3. Except as otherwise agreed in Paragraph B.11.B., the Parties agree to accept all recommendations, if any, in ORS witnesses Seaman-Huynh's and Bickley's testimonies and exhibits pertaining to DESC's fuel expenses and power plant operations for the Actual Period, and January 1, 2021, through April 30, 2021 ("Estimated Period"), as well as forecasted expenses for the period May 1, 2021, through April 30, 2022 ("Forecasted Period").

B.4. The Parties agree with the amounts set forth in ORS' witness Kleckley's testimony pertaining to DESC's operations under the Fuel Adjustment Clause for the Actual Period and the Estimated Period. Accordingly, DESC's net cumulative over-collected balance of total base fuel, variable environmental, and avoided capacity costs for the period ending December 31, 2020 totaled $55,898,521 and estimated net cumulative over-collected balance of total base fuel, variable environmental, and avoided capacity costs through April 2021 totaled $49,571,802. As of December 31, 2020, the net cumulative over-collected balance of $55,898,521 consists of cumulative over-collected base fuel costs of $52,090,275 and cumulative over-collected variable environmental and avoided capacity costs of $3,808,246. As of April 2021, the estimated net cumulative over-collected balance of $49,571,802 consists of cumulative over-collected base fuel costs of $44,697,895 and cumulative over-collected variable environmental and avoided capacity costs of $4,873,907.

Fuel Factors

B.5. The Parties agree that the appropriate fuel factors for DESC to charge pursuant to this Stipulation for the period beginning with the first billing cycle of May 2021 and extending through the last billing cycle of April 2022 are listed below and set forth in Attachment C.

Class	Base Fuel Cost Component (¢/kWh)	Variable Environmental & Avoided Capacity Cost Component (¢/kWh)	DER Avoided Cost Component (¢/kWh)	Total Fuel Costs Factor (¢/kWh)
Residential	2.413	0.068	0.042	2.523
Small General Service	2.413	0.058	0.037	2.508
Medium General Service	2.413	0.046	0.029	2.488
Large General Service	2.413	0.031	0.020	2.464
Lighting	2.413	0.000	0.000	2.413

B.6. If approved by the Commission, the rates proposed herein would increase the average monthly bill of a Rate 8 residential customer using 1,000 kWh per month from $122.31 to approximately $123.90, a net increase of approximately $1.59 or 1.30%.

B.7. The Parties agree the fuel factors set forth above are consistent with S.C. Code Ann. § 58-27-865 (2015). The Parties further agree that, except as provided in Paragraph B.1 and B.9 herein, any and all challenges to DESC's historical fuel costs recovery for the period ending December 31, 2020 are not subject to further review; however, the projected fuel costs for the period beginning January 1, 2021, and thereafter, shall be an open issue in future fuel costs proceedings held under the procedure and criteria established in S.C. Code Ann. § 58-27-865 (2015).

B.8. The Parties agree that it is reasonable and prudent for the Company to include in the Base Fuel Component its labor costs regarding nuclear fuel procurement, nuclear core design,

safety analysis, and fabrication surveillance and final receipt inspection. The Company agrees that it will not recover other labor costs through the Fuel Clause Statute without first seeking and obtaining review by interested parties and approval by the Commission. The Company further agrees that it will make all proper accounting adjustments to remove these labor costs from its base rates to ensure that there is no double counting of these costs.

B.9. The tariff sheet entitled, "Adjustment for Fuel, Variable Environmental, & Avoided Capacity, and Distributed Energy Resource Program Costs," attached hereto as Attachment C, including the rates, terms, and conditions, is lawful, just, and reasonable, and, if approved by the Commission, shall become effective for the period beginning with the first billing cycle of May 2021.

Other Items

B.10. With regards to plant outages not completed as of December 31, 2020, if any, and outages where final reports of DESC, contractors, governmental entities or others are not available, if any, the Parties agree that ORS retains the right to review the reasonableness of the plant outage(s) and associated costs in the review period during which the outage is completed or when the report(s) on such outage(s) become available.

B.11. Upon written request, DESC will provide the following to the Stipulating Parties:

a. Copies of the monthly fuel recovery reports currently filed with the Commission and ORS; and

b. Forecasts of the expected fuel factors to be set at DESC's next annual fuel proceeding using DESC's historical (over)/under-collected balance to date following the quarters ending June 30th and September 30th, 2021, and forecasted prices for uranium, natural gas, coal, oil, and other fuel required for the generation of electricity. The forecasts will also provide the expected DERP charge to be set

at the Company's next annual fuel proceeding based upon DESC's historical (over)/under-recovery to date and DESC's forecast of DERP incremental and avoided costs. DESC agrees it will put forth reasonable efforts to forecast the expected fuel factors to be set at its next annual fuel proceeding; however, the Parties agree that these quarterly forecasts will not be admitted into evidence in any future DESC proceeding.

B.12. The Parties agree that the Company's "Rider to Residential Rates and Time-of-Use Demand Rate 28 – Net Metering for Renewable Energy Facilities" should be eliminated because it terminated on December 31, 2020, and because all customers previously taking service under this rider have been transitioned to other rate schedules for which they are eligible.

C. REMAINING STIPULATION TERMS AND CONDITIONS

C.1 The Parties agree this Stipulation is reasonable, in the public interest, and in accordance with law and regulatory policy. This Stipulation in no way constitutes a waiver or acceptance of the position of any Party concerning the requirements of S.C. Code Ann. § 58-27-865 (2015) in any future proceeding.

C.2. Further, ORS is charged by law with the duty to represent the public interest of South Carolina pursuant to S.C. Code Ann. § 58-4-10(B) (Supp. 2018). S.C. Code Ann. § 58-4-10(B) reads in part as follows:

> . . . 'public interest' means the concerns of the using and consuming public with respect to public utility services, regardless of the class of customer and preservation of continued investment in and maintenance of utility facilities so as to provide reliable and high quality utility services.

ORS believes this Stipulation reached among the Parties serves the public interest as defined above.

C.3. The Parties agree to cooperate in good faith with one another in recommending to the Commission that this Stipulation be accepted and approved by the Commission as a fair, reasonable, and full resolution of the stipulated matters in the above-captioned proceeding and to take no action inconsistent with its adoption by the Commission. The Parties agree to use reasonable efforts to defend and support any Commission order issued approving this Stipulation and the terms and conditions contained herein.

C.4. This written Stipulation contains the complete agreement of the Parties. There are no other terms and conditions to which the Parties have agreed. This Stipulation integrates all discussions among the Parties into the terms of this written document. The Parties agree that this Stipulation will not constrain, inhibit, or impair their arguments or positions held in future proceedings, nor will this Stipulation or any of the matters agreed to in it be used as evidence or precedent in any future proceeding.

C.5. This Stipulation shall be interpreted according to South Carolina law. The above terms and conditions fully represent the agreement of the Parties hereto. Therefore, each Party acknowledges its consent and agreement to this Stipulation by authorizing its counsel to affix his or her signature to this document where indicated below. Counsel's signature represents his or her representation that his or her client has authorized the execution of the agreement. Facsimile signatures and e-mail signatures shall be as effective as original signatures to bind any Party. This document may be signed in counterparts, with the various signature pages combined with the body of the document constituting an original and provable copy of this Stipulation.

[SIGNATURES ON THE FOLLOWING PAGES]

WE AGREE:
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Jenny R. Pittman, Esquire
South Carolina Office of Regulatory Staff
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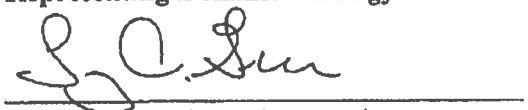
WE AGREE:
Representing Dominion Energy South Carolina, Inc.



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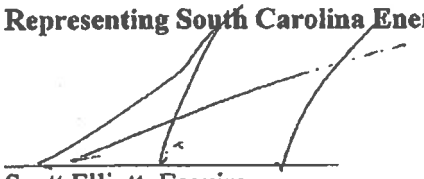
WE AGREE:
Representing South Carolina Energy Users Committee



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ATTACHMENT A

RIDER TO RETAIL RATES

SECOND NET ENERGY METERING FOR RENEWABLE ENERGY FACILITIES ("NEM")

AVAILABILITY

Effective May 4, 2019, this rider is closed and not available to any new participants. This rider terminates effective December 31, 2026, for all existing participants. After the termination date, rider participants may choose to receive service under any other schedule for which they qualify.

This rider is available in conjunction with the Company's Retail Electric Service Rates, for a Customer-Generator. The customer's generating system must be manufactured, installed and operated in accordance with governmental and industry standards and must fully conform with the Company's current interconnection standards as approved by the Public Service Commission of South Carolina.

This rider is available on a first come, first serve basis until the total nameplate generating capacity of net energy metering systems equals 2% of the previous five-year average of the Company's South Carolina retail electric peak demand.

CHARACTER OF SERVICE

The applicable character of service is specific to the rate schedule that the customer receives service under.

RATE PER MONTH

The applicable rate per month shall be from the appropriate rate schedule as referenced in the availability section above. The monthly bill shall be determined as follows:

For electric service under a time-of-use rate schedule:

1. The basic facilities charge shall be determined and billed as set forth in the applicable rate schedule as described in the Availability section above.

2. Any demand charges shall be determined and billed as set forth in the applicable rate schedule as described in the Availability section above.

3. If a customer-generator's energy consumption exceeds the electricity provided by the customer-generator during a monthly billing period, the customer-generator shall be billed in kWh for the net electricity supplied by the Utility.

   If a customer-generator's energy generation exceeds the electricity provided by the Utility during a monthly billing period, the customer-generator shall be credited for the excess kWh generated during that billing period.

   Energy charges (or credits) shall be based on the rates in the applicable rate schedules as described in the availability section above. For on-peak energy, the customer's monthly usage amount in kilowatt-hours shall be reduced by the total of (a) any on-peak excess energy delivered to the Company in the current month plus (b) any accumulated on-peak excess energy balance remaining from prior months. Total on-peak energy in kilowatt-hours billed to customers shall never be less than zero. For off-peak energy, the customer's monthly usage shall be reduced by the total of (a) any off-peak excess energy delivered to the Company in the current month plus (b) any accumulated off-peak excess energy balance remaining from prior months plus (c) any accumulated on-peak excess energy balance from the current month or prior months that was not used to reduce on-peak usage. Total off-peak energy in kilowatt-hours billed to customers shall also never be less than zero. For any billing month during which excess energy exceeds the customer's usage in total, producing a net credit, the respective energy charges for the billing month shall be zero. Any excess energy credits shall carry forward on the following month's bill by first applying excess on-peak kWh against on-peak kWh charges and excess off-peak kWh against off-peak kWh charges, then applying any remaining on-peak kWh against any remaining off-peak kWh charges. Credits shall not offset the basic facilities charge or the demand charge for the applicable rate schedule.

4. Excess energy not used in the current billing month to reduce billed kWh usage shall be accumulated and used to reduce usage in future months. For all affected billing statements rendered during November billing cycles, any accumulated excess energy not used to reduce billed kWh usage shall be paid to the customer-generator at the Company's avoided cost, zeroing out the customer generator's account of excess energy. The avoided cost is the off-

peak winter energy credit as approved in the Company's Rate PR-1, Small Power Production and Cogeneration schedule.

For electric service under a standard, non time-of-use rate schedule:

1. The basic facilities charge shall be determined and billed as set forth in the applicable rate schedule as described in the Availability section above.

2. Any demand charges shall be determined and billed as set forth in the applicable rate schedule as described in the Availability section above.

3. If a customer-generator's energy consumption exceeds the electricity provided by the customer-generator during a monthly billing period, the customer-generator shall be billed in kWh for the net electricity supplied by the Utility.

   If a customer-generator's energy generation exceeds the electricity provided by the Utility during a monthly billing period, the customer-generator shall be credited for the excess kWh generated during that billing period.

   Energy charges (or credits) shall be based on the rates in the applicable rate schedules as described in the availability section above. For purposes of calculating monthly energy, the customer's usage shall be reduced by the total of (a) any excess energy delivered to the Company in the current month plus (b) any accumulated excess energy balance remaining from prior months. Total energy in kilowatt-hours billed to customers shall never be less than zero. For any billing month during which excess energy exceeds the customer's usage in total, producing a net credit, the respective energy charges for the billing month shall be zero. Credits shall not offset the basic facilities charge or the demand charge for the applicable rate schedule.

4. Excess energy not used in the current billing month to reduce billed kWh usage shall be accumulated and used to reduce usage in future months. For all affected billing statements rendered during November billing cycles, any accumulated excess energy not used to reduce billed kWh usage shall be paid to the customer-generator at the Company's avoided cost, zeroing out the customer generator's account of excess energy. The avoided cost is the off-peak winter energy credit as approved in the Company's Rate PR-1, Small Power Production and Cogeneration schedule.

MINIMUM CHARGE

The monthly minimum charge shall be the basic facilities charge plus the demand charge, if any, as stated in the applicable rate.

DEFINITIONS

1. Customer-Generator means the owner, operator, lessee, or customer-generator lessee of an electric energy generation unit which:

   (A) generates electricity from a Renewable Energy Resource;
   (B) has an electrical generating system with a capacity of:
   (i) not more than the lesser of one thousand kilowatts (1,000 kW AC) or one hundred percent (100%) of contract demand if a non-residential customer; or
   (ii) not more than twenty kilowatts (20 kW AC) if a residential customer;
   (C) is located on a single premises owned, operated, leased, or otherwise controlled by the customer;
   (D) is interconnected and operates in parallel phase and synchronization with an electrical utility and complies with the applicable interconnection standards;
   (E) is intended primarily to offset part or all of the customer-generator's own electrical energy requirements; and
   (F) meets all applicable safety, performance, interconnection, and reliability standards established by the commission, the National Electrical Code, the National Electrical Safety Code, the Institute of Electrical and Electronics Engineers, Underwriters Laboratories, the federal Energy Regulatory Commission, and any local governing authorities.

2. Renewable Energy Resource means solar photovoltaic and solar thermal resources, wind resources, hydroelectric resources, geothermal resources, tidal and wave energy resources, recycling resources, hydrogen fuel derived from renewable resources, combined heat and power derived from renewable resources, and biomass resources.

RIDER TO RETAIL RATES

SECOND NET ENERGY METERING FOR RENEWABLE ENERGY FACILITIES ("NEM")
(Page 3 of 4)

3. Retail Electric Service Rates shall mean Rates 1, 2, 3, 5, 6, 7, 8, 9 (metered), 11, 12, 13, 14, 16, 20, 21, 21A, 22, 23, 24, and 28.

4. Excess energy delivered to the Company shall be defined as energy produced by the customer's renewable energy generating facility that exceeds the energy delivered by the Company during a given time period. This excess energy shall be used to reduce energy delivered and billed by the Company during the current or a future month, as provided in the Rate Per Month section above.

5. The On-Peak and Off-Peak periods shall be defined in the applicable time-of-use rate schedules.

GENERAL PROVISIONS

1. To qualify for this rider, the customer must first qualify for and be served on one of the rate schedules as described in the availability section above. The customer must also meet all other qualifications as outlined in the availability section above.

2. All provisions of the applicable rate schedules described above including, but not limited to Billing Demand, Determination of On- and Off-Peak Hours, Adjustment for Fuel Costs, Demand Side Management Component, Pension Costs Component, Storm Damage Component, Sales and Franchise Tax, Payment Terms, and Special Provisions will apply to service supplied under this rider.

3. Customers electing service under this NEM Rider are eligible to remain on the Rider until December 31, 2025, or until such time as the customer elects to terminate service under the Rider, whichever occurs first. The rates set forth here are subject to Commission Order No. 2015-194 in Docket No. 2014-246-E entered under the terms of S.C. Code § 58-40-20(F)(4). Eligibility for this rate will terminate as set forth in Order No. 2015-194. The value of distributed energy resource generation shall be computed using the methodology contained in Commission Order No. 2015-194 in Docket No. 2014-246-E and updated annually coincident in time with the Company's filing in the fuel clause. The value beginning on, during, and after the first billing cycle of May 2021 is $0.03857 per kWh.

4. Service on this NEM Rider will be closed to new participants as of January 1, 2021, or after statutory caps described in S.C. Code Ann. § 58-39-130 have been reached, whichever occurs first.

5. When no contract demand level is available for a non-residential customer, connected load as determined by the Company shall be used as a proxy for contract demand when determining the capacity of the electrical generating system.

6. Customers who elect NEM service after January 1, 2021, will receive service in accordance with the NEM tariff in effect at the time at which the customer requests NEM service.

7. Customers served under this rider are not eligible for the Company's Small Power Production, Cogeneration Rate PR-1.

8. The customer must execute an application to interconnect generation and an interconnection agreement prior to receiving service under this rider.

9. The Company will retain ownership of Renewable Energy Credits ("RECs").

10. In the event the Company determines that it is necessary to increase the capacity of facilities beyond those required to serve the Customer's electrical requirement or to install a dedicated transformer or other equipment to protect the safety and adequacy of electric service provided to other customers, the Customer shall pay the estimated cost of the required transformer or other equipment above the estimated cost which Company would otherwise have normally incurred to serve the Customer's electrical requirement, in advance of receiving service under this Rider.

RIDER TO RETAIL RATES

SECOND NET ENERGY METERING FOR RENEWABLE ENERGY FACILITIES ("NEM")

SPECIAL PROVISIONS

The Company will furnish service in accordance with its standard specifications. Non-standard service will be furnished only when the customer pays the difference in costs between non-standard service and standard service or pays to the Company its normal monthly facility charge based on such difference in costs.

METERING REQUIREMENTS

Customer must furnish, install, own, and maintain a meter socket to measure 100% of the Customer's generator output and that is connected on the Customer's side of the delivery point. Company will furnish, install, own, and maintain a generation meter. Company will also furnish, install, own and maintain a bi-directional billing meter to measure the kWh delivered from Company to Customer and to measure kWh received from Customer by Company. The billing meter will be configured for demand and/or time-of-use measurement as required by the applicable rate. All metering shall be at a location that is approved by the Company. At Company's sole option, the generator meter requirement may be waived for customers served under a net metering rider on or before December 31, 2015.

TERM OF CONTRACT

Contracts shall be for a period not to exceed the term of the contract under which the customer currently receives electric service. There shall be a separate contract for each meter at each location.

GENERAL TERMS AND CONDITIONS

The Company's General Terms and Conditions are incorporated by reference and are part of this rider.

ATTACHMENT B

RIDER TO RETAIL RATES

THIRD NET ENERGY METERING FOR RENEWABLE ENERGY FACILITIES ("NEM")

AVAILABILITY

This rider is available in conjunction with the Company's Retail Electric Service Rates, for a Customer-Generator who applies for NEM service from May 17, 2019, through May 31, 2021. The customer's generating system must be manufactured, installed and operated in accordance with governmental and industry standards and must fully conform with the Company's current interconnection standards as approved by the Public Service Commission of South Carolina.

CHARACTER OF SERVICE

The applicable character of service is specific to the rate schedule that the customer receives service under.

RATE PER MONTH

The applicable rate per month shall be from the appropriate rate schedule as referenced in the availability section above. The monthly bill shall be determined as follows:

For electric service under a time-of-use rate schedule:

1. The basic facilities charge shall be determined and billed as set forth in the applicable rate schedule as described in the Availability section above.

2. Any demand charges shall be determined and billed as set forth in the applicable rate schedule as described in the Availability section above.

3. If a customer-generator's energy consumption exceeds the electricity provided by the customer-generator during a monthly billing period, the customer-generator shall be billed in kWh for the net electricity supplied by the Utility.

   If a customer-generator's energy generation exceeds the electricity provided by the Utility during a monthly billing period, the customer-generator shall be credited for the excess kWh generated during that billing period.

   Energy charges (or credits) shall be based on the rates in the applicable rate schedules as described in the availability section above. For on-peak energy, the customer's monthly usage amount in kilowatt-hours shall be reduced by the total of (a) any on-peak excess energy delivered to the Company in the current month plus (b) any accumulated on-peak excess energy balance remaining from prior months. Total on-peak energy in kilowatt-hours billed to customers shall never be less than zero. For off-peak energy, the customer's monthly usage shall be reduced by the total of (a) any off-peak excess energy delivered to the Company in the current month plus (b) any accumulated off-peak excess energy balance remaining from prior months plus (c) any accumulated on-peak excess energy balance from the current month or prior months that was not used to reduce on-peak usage. Total off-peak energy in kilowatt-hours billed to customers shall also never be less than zero. For any billing month during which excess energy exceeds the customer's usage in total, producing a net credit, the respective energy charges for the billing month shall be zero. Any excess energy credits shall carry forward on the following month's bill by first applying excess on-peak kWh against on-peak kWh charges and excess off-peak kWh against off-peak kWh charges, then applying any remaining on-peak kWh against any remaining off-peak kWh charges. Credits shall not offset the basic facilities charge or the demand charge for the applicable rate schedule.

4. Excess energy not used in the current billing month to reduce billed kWh usage shall be accumulated and used to reduce usage in future months. For all affected billing statements rendered during November billing cycles, any accumulated excess energy not used to reduce billed kWh usage shall be paid to the customer-generator at the Company's avoided cost, zeroing out the customer generator's account of excess energy. The avoided cost is the off-peak winter energy credit as approved in the Company's Rate PR-1, Small Power Production and Cogeneration schedule.

For electric service under a standard, non time-of-use rate schedule:

1. The basic facilities charge shall be determined and billed as set forth in the applicable rate schedule as described in the Availability section above.

2. Any demand charges shall be determined and billed as set forth in the applicable rate schedule as described in the Availability section above.

3. If a customer-generator's energy consumption exceeds the electricity provided by the customer-generator during a monthly billing period, the customer-generator shall be billed in kWh for the net electricity supplied by the Utility.

   If a customer-generator's energy generation exceeds the electricity provided by the Utility during a monthly billing period, the customer-generator shall be credited for the excess kWh generated during that billing period.

   Energy charges (or credits) shall be based on the rates in the applicable rate schedules as described in the availability section above. For purposes of calculating monthly energy, the customer's usage shall be reduced by the total of (a) any excess energy delivered to the Company in the current month plus (b) any accumulated excess energy balance remaining from prior months. Total energy in kilowatt-hours billed to customers shall never be less than zero. For any billing month during which excess energy exceeds the customer's usage in total, producing a net credit, the respective energy charges for the billing month shall be zero. Credits shall not offset the basic facilities charge or the demand charge for the applicable rate schedule.

4. Excess energy not used in the current billing month to reduce billed kWh usage shall be accumulated and used to reduce usage in future months. For all affected billing statements rendered during November billing cycles, any accumulated excess energy not used to reduce billed kWh usage shall be paid to the customer-generator at the Company's avoided cost, zeroing out the customer generator's account of excess energy. The avoided cost is the off-peak winter energy credit as approved in the Company's Rate PR-1, Small Power Production and Cogeneration schedule.

MINIMUM CHARGE

The monthly minimum charge shall be the basic facilities charge plus the demand charge, if any, as stated in the applicable rate.

DEFINITIONS

1. Customer-Generator means the owner, operator, lessee, or customer-generator lessee of an electric energy generation unit which:

   (A) generates or discharges electricity from a Renewable Energy Resource, including an energy storage device configured to receive electrical charge solely from an onsite Renewable Energy Resource;
   (B) has an electrical generating system with a capacity of:
      (i) not more than the lesser of one thousand kilowatts (1,000 kW AC) or one hundred percent (100%) of contract demand if a non-residential customer; or
      (ii) not more than twenty kilowatts (20 kW AC) if a residential customer;
   (C) is located on a single premises owned, operated, leased, or otherwise controlled by the customer;
   (D) is interconnected and operates in parallel phase and synchronization with an electrical utility and complies with the applicable interconnection standards;
   (E) is intended primarily to offset part or all of the customer-generator's own electrical energy requirements; and
   (F) meets all applicable safety, performance, interconnection, and reliability standards established by the commission, the National Electrical Code, the National Electrical Safety Code, the Institute of Electrical and Electronics Engineers, Underwriters Laboratories, the federal Energy Regulatory Commission, and any local governing authorities.

2. Renewable Energy Resource means solar photovoltaic and solar thermal resources, wind resources, hydroelectric resources, geothermal resources, tidal and wave energy resources, recycling resources, hydrogen fuel derived from renewable resources, combined heat and power derived from renewable resources, and biomass resources.

RIDER TO RETAIL RATES

THIRD NET ENERGY METERING FOR RENEWABLE ENERGY FACILITIES ("NEM")
(Page 3 of 4)

3. Retail Electric Service Rates shall mean Rates 1, 2, 3, 5, 6, 7, 8, 9 (metered), 11, 12, 13, 14, 16, 20, 21, 21A, 22, 23, 24, and 28.

4. Excess energy delivered to the Company shall be defined as energy produced by the customer's renewable energy generating facility that exceeds the energy delivered by the Company during a given time period. This excess energy shall be used to reduce energy delivered and billed by the Company during the current or a future month, as provided in the Rate Per Month section above.

5. The On-Peak and Off-Peak periods shall be defined in the applicable time-of-use rate schedules.

GENERAL PROVISIONS

1. To qualify for this rider, the customer must first qualify for and be served on one of the rate schedules as described in the availability section above. The customer must also meet all other qualifications as outlined in the availability section above.

2. All provisions of the applicable rate schedules described above including, but not limited to Billing Demand, Determination of On- and Off-Peak Hours, Adjustment for Fuel Costs, Demand Side Management Component, Pension Costs Component, Storm Damage Component, Sales and Franchise Tax, Payment Terms, and Special Provisions will apply to service supplied under this rider.

3. Customers electing service under this NEM Rider are eligible to remain on the Rider until May 31, 2029, or until such time as the customer elects to terminate service under the Rider, whichever occurs first. The rates set forth here are subject to Commission Order No. 2015-194 in Docket No. 2014-246-E. Eligibility for this rate will terminate as set forth in Order No. 2015-194. The value of distributed energy resource generation shall be computed using the methodology contained in Commission Order No. 2015-194 in Docket No. 2014-246-E and updated coincident in time with each avoided cost proceeding conducted pursuant to S.C. Code Ann. § 58-41-20(A). The value beginning on, during, and after the first billing cycle of May 2021 is $0.03857 per kWh.

4. Service on this NEM Rider will be closed to new participants as of June 1, 2021.

5. When no contract demand level is available for a non-residential customer, connected load as determined by the Company shall be used as a proxy for contract demand when determining the capacity of the electrical generating system.

6. Customers who apply for NEM service after May 31, 2021, will receive service in accordance with the NEM tariff in effect at the time at which the customer requests NEM service.

7. Customers served under this rider are not eligible for the Company's Small Power Production, Cogeneration Rate PR-1.

8. The customer must execute an application to interconnect generation and an interconnection agreement prior to receiving service under this rider.

9. The Company will retain ownership of Renewable Energy Credits ("RECs").

10. In the event the Company determines that it is necessary to increase the capacity of facilities beyond those required to serve the Customer's electrical requirement or to install a dedicated transformer or other equipment to protect the safety and adequacy of electric service provided to other customers, the Customer shall pay the estimated cost of the required transformer or other equipment above the estimated cost which Company would otherwise have normally incurred to serve the Customer's electrical requirement, in advance of receiving service under this Rider.

RIDER TO RETAIL RATES

THIRD NET ENERGY METERING FOR RENEWABLE ENERGY FACILITIES ("NEM")
(Page 4 of 4)

SPECIAL PROVISIONS

The Company will furnish service in accordance with its standard specifications. Non-standard service will be furnished only when the customer pays the difference in costs between non-standard service and standard service or pays to the Company its normal monthly facility charge based on such difference in costs.

METERING REQUIREMENTS

Customer must furnish, install, own, and maintain a meter socket to measure 100% of the Customer's generator output and that is connected on the Customer's side of the delivery point. Company will furnish, install, own, and maintain a generation meter. Company will also furnish, install, own and maintain a bi-directional billing meter to measure the kWh delivered from Company to Customer and to measure kWh received from Customer by Company. The billing meter will be configured for demand and/or time-of-use measurement as required by the applicable rate. All metering shall be at a location that is approved by the Company. At Company's sole option, the generator meter requirement may be waived for customers served under a net metering rider on or before December 31, 2015.

TERM OF CONTRACT

Contracts shall be for a period not to exceed the term of the contract under which the customer currently receives electric service. There shall be a separate contract for each meter at each location.

GENERAL TERMS AND CONDITIONS

The Company's General Terms and Conditions are incorporated by reference and are part of this rider.

ATTACHMENT C

ADJUSTMENT FOR FUEL, VARIABLE ENVIRONMENTAL & AVOIDED CAPACITY, AND DISTRIBUTED ENERGY RESOURCE COSTS

RETAIL RATES

APPLICABILITY

This adjustment is applicable to and is part of the Utility's South Carolina retail electric rate schedules.

The fuel, variable environmental & avoided capacity, and DER avoided costs, to be recovered in an amount rounded to the nearest one-thousandth of a cent per kilowatt-hour, will be determined by the following formulas:

$$F_C = \frac{E_F}{S} + \frac{G_F}{S_1}$$

$$F_{EC} = \frac{E_{EC} + G_{EC}}{S_2}$$

$$F_{AC} = \frac{E_{AC} + G_{AC}}{S_2}$$

Total Fuel Rate per kWh $= F_C + F_{EC} + F_{AC}$

Where:

F_C = Fuel cost per kilowatt-hour included in base rate, rounded to the nearest one-thousandth of a cent.

E_F = Total projected system fuel costs:

(A) Fuel consumed in the Utility's own plants and the Utility's share of fuel consumed in jointly owned or leased plants. The cost of fossil fuel shall include no items other than those listed in Account 151 of the Commission's Uniform System of Accounts for Public Utilities and Licensees. The cost of nuclear fuel shall be that as shown in Account 518 excluding rental payments on leased nuclear fuel and except that, if Account 518 also contains any expense for fossil fuel which has already been included in the cost of fossil fuel, it shall be deducted from this account.

PLUS

(B) Fuel costs related to purchased power such as those incurred in unit power and limited term power purchases where the fossil fuel costs associated with energy purchased are identifiable and are identified in the billing statement, and also including avoided energy costs incurred by the Utility. Also, the cost of "firm generation capacity purchases," which are defined as purchases made to cure a capacity deficiency or to maintain adequate reserve levels. Costs of "firm generation capacity purchases" includes the total delivered costs of firm generation capacity purchased and excludes generation capacity reservation charges, generation capacity option charges and any other capacity charges.

PLUS

(C) Fuel costs related to purchased power (including transmission charges), such as short term, economy and other such purchases, where the energy is purchased on an economic dispatch basis, including the total delivered cost of economy purchases of electric power defined as purchases made to displace higher cost generation at a cost which is less than the purchasing Utility's avoided variable costs for the generation of an equivalent quantity of electric power.

Energy receipts that do not involve money payments such as diversity energy and payback of storage energy are not defined as purchased or interchange power relative to this fuel calculation.

MINUS

(D) The cost of fuel recovered through intersystem sales including the fuel costs related to economy energy sales and other energy sold on an economic dispatch basis.

Energy deliveries that do not involve billing transactions such as diversity energy and payback of storage energy are not defined as sales relative to this fuel calculation.

S = Projected system kilowatt-hour sales excluding any intersystem sales.

G_F = Cumulative difference between jurisdictional fuel revenues billed and fuel expenses at the end of the month preceding the projected period utilized in E_F and S.

S_1 = Projected jurisdictional kilowatt-hour sales, for the period covered by the fuel costs included in E_F.

F_{EC} = Customer class variable environmental and avoided capacity costs per kilowatt-hour included in base rates, rounded to the nearest one-thousandth of a cent.

ADJUSTMENT FOR FUEL, VARIABLE ENVIRONMENTAL & AVOIDED CAPACITY, AND DISTRIBUTED ENERGY RESOURCE COSTS

RETAIL RATES
(Page 2 of 2)

E_{EC} = The projected variable environmental costs including: a) the cost of ammonia, lime, limestone, urea, dibasic acid, and catalysts consumed in reducing or treating emissions, plus b) the cost of emission allowances, as used, including allowances for SO2, NOx, mercury and particulates minus net proceeds of sales of emission allowances, and c) as approved by the Commission, all other variable environmental costs incurred in relation to the consumption of fuel and air emissions caused thereby, including but not limited to environmental reagents, other environmental allowances, and emission related taxes. Any environmental related costs recovered through intersystem sales would be subtracted from the totals produced by subparts a), b), and c). This component also includes avoided capacity costs incurred by the Utility.

These environmental and avoided capacity costs will be allocated to retail customer classes based upon the customer class firm peak demand allocation from the prior year.

G_{EC} = Cumulative difference between jurisdictional customer class environmental fuel revenues billed and jurisdictional customer class environmental costs at the end of the month preceding the projected period utilized in E_{EC} and S_2.

F_{AC} = Customer class DER avoided costs per kilowatt-hour included in base rates, rounded to the nearest one-thousandth of a cent.

E_{AC} = The projected DER avoided costs paid to distributed generators as most recently determined by the Public Service Commission of South Carolina. These avoided costs will be allocated to retail electric customer classes based upon the customer class firm peak demand allocation from the prior year.

G_{AC} = Cumulative difference between jurisdictional customer class avoided cost revenues billed and jurisdictional customer class avoided costs at the end of the month preceding the projected period utilized in E_{AC} and S_2.

S_2 = The projected jurisdictional customer class kilowatt-hour sales.

The appropriate revenue-related tax factor is to be included in these calculations.

FUEL RATES PER KWH BY CLASS

The total fuel costs in cents per kilowatt-hour by customer class as determined by the Public Service Commission of South Carolina in Order No. 2021-___ are as follows for the period May, 2021 through April, 2022:

Customer Class	F_C Rate	+	F_{EC} Rate	+	F_{AC} Rate	=	Total Fuel Rate
Residential	2.413		0.068		0.042		2.523
Small General Service	2.413		0.058		0.037		2.508
Medium General Service	2.413		0.046		0.029		2.488
Large General Service	2.413		0.031		0.020		2.464
Lighting	2.413		0.000		0.000		2.413

The incremental costs associated with DESC's Distributed Energy Resource Programs, to be recovered in an amount rounded to the nearest cent per account, will be determined by the following formulas:

Total Fuel Rate per Account

$$F_{IC} = \frac{E_{DC} + G_{DC}}{C}$$

Where:

F_{IC} = Fuel cost per account included in base rate, rounded to the nearest cent, not to exceed $12 for residential customers, $120 for small/medium general service customers, and $1,200 for large general service customers.

E_{DC} = The projected incremental costs associated with DESC's Distributed Energy Resource Program as determined by the Public Service Commission of South Carolina

G_{DC} = Cumulative difference between jurisdictional customer class distributed energy component revenues billed and jurisdictional customer class incremental costs associated with DESC's Distribued Energy Resource Program at the end of the month preceding the projected period utilized in E_{DC} and C.

C = The jurisdictional customer class account totals.

FUEL RATES PER ACCOUNT PER MONTH BY CLASS

The total fuel costs in dollars per account by customer class as determined by the Public Service Commission of South Carolina in Order No. 2021-___ are as follows for the period May, 2021 through April, 2022:

Customer Class	F_{IC} Rate
Residential	$ 1.00
Small & Medium General Service	$ 6.15
Large General Service	$ 100.00

Effective for Bills Rendered On and After the First Billing Cycle of May 2021
Pursuant to Public Service Commission of South Carolina Order No. 2021-___.